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Vol. I

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, [illegible] 1914

No. ~~[illegible]~~ 420

NORTHERN PACIFIC RAILWAY COMPANY, PLAINTIFF IN ERROR,

vs.

STATE OF NORTH DAKOTA ON RELATION OF T. F. McCUE, ATTORNEY GENERAL.

IN ERROR TO THE SUPREME COURT OF THE STATE OF NORTH DAKOTA.

MINNESOTA STATE LIBRARY

FILED MARCH 28, 1914.

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SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1913.

No. 980.

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IN ERROR TO THE SUPREME COURT OF THE STATE OF NORTH DAKOTA.

INDEX.

VOL. I.

	Page
Petition to take testimony and for appointment of referee	1
Agreement for appointment of R. D. Hoskins as referee	2
Order appointing referee	3
Opinion	4
Concurring opinion by Spalding, J.	50
Judgment	51
Assignment of errors	53
Petition for writ of error	53
Bond on writ of error	54
Writ of error	55
Citation and service	56
Clerk's certificate	57

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VOL. II.

	Page
Transcript of testimony	1
Testimony of R. Toombs	3
W. J. Buchanan	38
Stipulation as to assessed valuation of Soo road	40
Testimony of R. Toombs (recalled)	43
S. W. Derrick	133
C. N. Kolk	144
E. Pennington	162
W. L. Martin	171
Wm. G. Johnson	180
L. R. Capron	226
Wm. G. Johnson (recalled)	237
Howard Elliott	256
G. R. Martin	268
J. A. Little	322
C. W. Hillman	450
R. Toombs (recalled)	596
G. A. Goodell	618
W. J. Buchanan	621

VOL. III.

N. P. Exhibit 1—Statement showing number of cars, tons, ton miles, Northern Pacific revenue, average haul, average rate per ton, and average revenue per car on all intrastate carload shipments of coal forwarded from points named from April 11, 1910, to June 30, 1911, inclusive 1

N. P. Exhibit 2—Statement showing number of carload shipments of coal forwarded per day from points named for month of April, 1910 (April 11 to April 30) 2

N. P. Exhibit 3—Statement showing number of shipments of all coal forwarded per day from points named for month of May, 1910 3

N. P. Exhibit 4—Statement showing number of shipments of all coal forwarded per day from points named for month of June, 1910 4

N. P. Exhibit 5—Statement showing number of carload shipments of all coal forwarded per day from points named for the month of July, 1910 5

N. P. Exhibit 6—Statement showing number of carload shipments of all coal forwarded per day from points named for the month of August, 1910 6

N. P. Exhibit 7—Statement showing number of carload shipments of all coal forwarded per day from points named for the month of September, 1910 7

N. P. Exhibit 8—Statement showing number of carload shipments of all coal forwarded per day from points named for month of October, 1910 9

N. P. Exhibit 9—Statement showing number of carload shipments of all coal forwarded per day from points named for month of November, 1910 11

Page

N. P. Exhibit 10—Statement showing number of carload shipments of all coal per day from points named for month of December, 1910..... 13
N. P. Exhibit 11—Statement showing number of carload shipments of all coal forwarded per day from points named for month of January, 1911 15
N. P. Exhibit 12—Statement showing number of carload shipments of all coal forwarded per day from points named for month of February, 1911 17
N. P. Exhibit 13—Statement showing number of carload shipments of all coal forwarded per day from points named for month of March, 1911. 19
N. P. Exhibit 14—Statement showing number of carload shipments of all coal forwarded per day from points named for month of April, 1911.. 20
N. P. Exhibit 15—Statement showing number of carload shipments of all coal forwarded per day from points named for month of May, 1911... 21
N. P. Exhibit 16—Statement showing number of carload shipments of all coal forwarded per day from points named for month of June, 1911... 22
N. P. Exhibit 17—Statement showing actual haul of lignite coal in North Dakota since the legislative rates became effective, April 11, 1910, to June 30, 1911, with empty haul of cars from points at which last unloaded to points where loaded with lignite coal..... 23
N. P. Exhibit 18—Statement showing number of cars, tons, ton miles, Northern Pacific revenue, average haul, average rate per ton mile, and average revenue per car on intrastate carload shipments of lignite coal forwarded from points named for year ending June 30, 1911..... 24
N. P. Exhibit 19—Comparison of revenue from and traffic statistics pertaining to lignite coal traffic, with all freight traffic handled in the State of North Dakota, fiscal year ending June 30, 1911..... 25
N. P. Exhibit 20—Statement showing comparative cost of transporting freight in main-line "way," main-line "through," and branch-line freight trains on operating districts within or touching North Dakota for road train service and engine service expenses, including repairs of road engines 26
N. P. Exhibit 21—Lignite coal shipments in North Dakota, year ending June 30, 1911 27
N. P. Exhibit 22—Operating cost of lignite coal in North Dakota..... 33
N. P. Exhibit 23—Freight expenses in the State of North Dakota, year ending June 30, 1911..... 36
N. P. Exhibit 24—Results from the transportation of lignite coal in North Dakota, year ending June 30, 1911..... 37
N. P. Exhibit 25—Soft coal..... 38
N. P. Exhibit 26—Soft coal..... 39
N. P. Exhibit 27—Soft coal from Kansas City, Missouri, in cents per ton 40
N. P. Exhibit 28—Kansas distance tariff rates on soft coal in cents per ton 41
N. P. Exhibit 29—Soft coal from Kansas City, Missouri, rates in cents per ton 42
N. P. Exhibit 30—Soft coal, Rock Springs, Wyoming..... 43
N. P. Exhibit 31—Soft coal from Pittsburg, Kansas..... 44
N. P. Exhibit 32—Nebraska distance rates..... 45
N. P. Exhibit 33—Soft coal from Brazil, Indiana..... 46

	Page
N. P. Exhibit 34—Soft coal rates in Indiana, etc.	47
N. P. Exhibit 35—Bituminous coal	48
N. P. Exhibit 36—Soft coal from Lilly, Pennsylvania	49
N. P. Exhibit 37—South Dakota distance rates	50
N. P. Exhibit 38—Local mileage tariff on coal and coke between stations on the Lake Shore and Mich. So. Ry.	51
N. P. Exhibit 39—Arkansas maximum coal rates	52
N. P. Exhibit 40—Oklahoma-Arkansas coal rates	53
N. P. Exhibit 41—Erie R. R., I. C. C. D-543, etc., soft coal	54
N. P. Exhibit 42—Statement	55
N. P. Exhibit 43—North Dakota coal-rate case	56
G. N. Exhibit 1—Showing intrastate shipments of lignite coal in North Dakota, year ending June 30, 1911	57
G. N. Exhibit 2—Statement of operating expenses and taxes, State of North Dakota, year ending June 30, 1911	58
G. N. Exhibit 6—Map, Great Northern Railway system	59
G. N. Exhibit 4—Basis for dividing "common" operating expenses between "passenger" and "freight"	60
G. N. Exhibit 5—Statement of operating expenses and taxes in North Dakota, year ended June 30, 1911	61
G. N. Exhibit 6—Statement showing loaded and empty car mileage, State of North Dakota, year ended June 30, 1911	62
Soo Exhibit 1—Map	63
Soo Exhibit 2—Explanation of statements, "Group A"	64
Soo Exhibit 3—"Group A," table No. 1	65
Soo Exhibit 4—"Group A," table No. 2	66
Soo Exhibit 5—"Group A," table No. 3	67
Soo Exhibit 6—"Group A," table No. 4	68
Soo Exhibit 7—"Group A," table No. 5	69
Soo Exhibit 8—"Group A," table No. 6	70
Soo Exhibit 9—"Group A," table No. 7	71
Soo Exhibit 10—"Group A," table No. 8	72
Soo Exhibit 11—Explanation of statements, "Group B"	73
Soo Exhibit 12—"Group B," table No. 9	74
Soo Exhibit 13—"Group B," table No. 10	75
Soo Exhibit 14—"Group B," table No. 11	76
Soo Exhibit 15—"Group B," table No. 12	77
Soo Exhibit 16—"Group B," table No. 13	78
Soo Exhibit 17—"Group B," table No. 14	79
Soo Exhibit 18—"Group B," table No. 15	80
Soo Exhibit 19—Explanation of statements, "Group C"	81
Soo Exhibit 20—"Group C," table No. 16	82
Soo Exhibit 21—"Group C," table No. 17	83
Soo Exhibit 22—"Group C," table No. 18	84
Soo Exhibit 23—Explanation of statements, "Group D"	85
Soo Exhibit 24—"Group D," table No. 19	86
Soo Exhibit 25—"Group D," table No. 20	87
Soo Exhibit 26—"Group D," table No. 21	88
Soo Exhibit 27—"Group D," table No. 22	89
Soo Exhibit 28—Explanation of statements, "Group E"	90
Soo Exhibit 29—"Group E," table No. 23	91

Page

Soo Exhibit 30—"Group E," table No. 24 92
Soo Exhibit 31—Explanation of statements, "Group F" 93
Soo Exhibit 32—"Group F," table No. 25 94
Soo Exhibit 33—"Group F," table No. 26 95
Soo Exhibit 34—Statement of intrastate shipments of anthracite and bituminous coal for the State North Dakota for the year ending June 30, 1913 96
Soo Exhibit 35—Statement of lignite coal movement, by stations, in North Dakota, years ending June 30, 1910-1911 97
Soo Exhibit 36—North Dakota valuation 103
Soo Exhibit 37—Comparison of results as shown by Soo Line statements and results as shown by Northern Pacific statements, etc. 104
Soo Exhibit 38—Statement 105
Soo Exhibit 39—Statement of North Dakota freight earnings 107
Soo Exhibit 40—Statement of percentages by checking "way-freight" and "through-freight" trains in North Dakota 108
Soo Exhibit 41—Statement as to freight traffic 109
Soo Exhibit 42—Statement of "interest and discount" 110
Soo Exhibit 43—Statement of percentages by checking trains in North Dakota, etc. 111
Soo Exhibit 44—Statement of percentages of transportation expense, etc. 112
Soo Exhibit 44½—Comparative statement of freight operating expenses for the State of North Dakota 113
Soo Exhibit 44¾—Statement, exclusive of Missouri River division 114
Soo Exhibit 45—Statement computing excess cost of way freight, etc. .. 115
Soo Exhibit 45½—Earnings and expenses lignite coal, State of North Dakota, year ending June 30, 1911 116
Soo Exhibit 46—Statement concerning rates on freight per ton based on length of haul 117
Soo Exhibit 47—Comparison of State costs with Soo Line costs as determined on State basis 118
Soo Exhibit 48—Statement considering empty-car haul 119
Soo Exhibit 49—Statement of operating expenses and taxes for North Dakota, etc. 120
Soo Exhibit 50—Traffic statistics 121
Soo Exhibit 51—Traffic statistics, exclusive of Missouri River division .. 122
Soo Exhibit 52—Freight operating expenses and taxes, Missouri River division 123
Soo Exhibit 53—Freight operating expenses and taxes, excluding Missouri River division 124
Plaintiff's Exhibit "1 A"—Statement of tonnage and fright charges waybilled from all Soo Line stations, entire line 125
Plaintiff's Exhibit "1 B"—Statement of tonnage and freight charges waybilled from Soo Line stations in North Dakota 126
Plaintiff's Exhibit "1 C"—Lignite coal traffic of North Dakota 127
Plaintiff's Exhibit "1 D"—Statement of train, car, and locomotive mileage in North Dakota 128
Plaintiff's Exhibit "1 E"—Detailed statement of revenues as per 45, etc. 129
Plaintiff's Exhibit "1 F"—Statement of freight and passenger traffic in North Dakota 130

Page
Plaintiff's Exhibit "1 G"—Traffic expenses entire line..... 131
Plaintiff's Exhibit "1 H"—Comparative statement of revenue and expenses 132
Plaintiff's Exhibit "1 I"—Method of apportionment of interstate revenue 133
Plaintiff's Exhibit "1 J"—Statement showing operating expenses allocated and allotted to the State of North Dakota..... 134
Plaintiff's Exhibit "1 K"—Statement of transportation and general expenses 135
Plaintiff's Exhibit "2 A"—Operating expenses, State of North Dakota 136
Plaintiff's Exhibit "2 B"—Statement of transportation and general expenses 137
Plaintiff's Exhibit "2 C"—Traffic expense of entire line..... 138
Plaintiff's Exhibit "2 D"—Transportation expense, State of North Dakota 139
Plaintiff's Exhibit "2 E"—Statement of expenditures at stations in North Dakota 140
Plaintiff's Exhibit "2 F"—Classification of train, engine, and car miles and rules for additional operating expenses to accounting divisions... 141
Plaintiff's Exhibit "3"—Formula employed in Nebraska rate case in assigning operating expenses to freight and passenger traffic..... 158
Plaintiff's Exhibit "4"—Division of accounts comprising maintenance of way and structures, etc. 162
Plaintiff's Exhibit "5"—Division of accounts comprising maintenance of equipment 163
Plaintiff's Exhibit "6"—Division of accounts comprising traffic expenses. 164
Plaintiff's Exhibit "7"—Division of accounts comprising "conducting transportation" 165
Plaintiff's Exhibit "8"—Division of accounts comprising "general expenses" 166
Plaintiff's Exhibit 9—Statement showing total amounts assigned to freight and passenger by primary accounts, etc..... 167
Plaintiff's Exhibit 10—Division of accounts comprising conducting transportation on the Northern Pacific and charged to freight, as per Exhibit 7, etc. 168
Plaintiff's Exhibit 11—Statement showing freight traffic in North Dakota, fiscal year ending June 30, 1911..... 169
Plaintiff's Exhibit 12—Statement showing tons, ton miles, revenue, and rates on intrastate carload shipments of coal..... 170
Plaintiff's Exhibit 13—Statement of financial distribution..... 171
Plaintiff's Exhibit 14—Comparative statement of tons and car miles.... 172
Plaintiff's Exhibit 15—Statement determining terminal costs per unit of traffic 173
Plaintiff's Exhibit 16—Movement costs per unit of traffic..... 174
Plaintiff's Exhibit 17—Comparative statement of costs for operating expenses and taxes with lignite coal rates..... 175
Plaintiff's Exhibit 18—Rates compared with distance costs..... 176
Plaintiff's Exhibit 19—Division of accounts comprising maintenance of way and structures on the M., St. P. & S. S. M. Ry. Co. 177
Plaintiff's Exhibit 20—Division of accounts comprising maintenance of equipment on the M., St. P. & S. S. M. Ry. Co. 178

Page

Plaintiff's Exhibit 21—Division of accounts comprising traffic expenses on the M., St. P. and S. S. Ry. Co. 179
Plaintiff's Exhibit 22—Division of accounts comprising conducting transportation on the M., St. P. & S. S. M. Ry. Co. 180
Plaintiff's Exhibit 23—Division of accounts comprising general expenses on the M., St. P. & S. S. M. Ry. Co. 181
Plaintiff's Exhibit 24—Statement showing total amounts assigned to freight and passenger by primary accounts as previously stated and adding taxes to freight 182
Plaintiff's Exhibit 25—Division of accounts comprising conducting transportation on the M., St. P. & S. S. M. Ry. Co. and charged to freight, as per Exhibit 22, etc. 183
Plaintiff's Exhibit 26—Statement showing freight traffic, North Dakota, fiscal year ending June 30, 1911..... 184
Plaintiff's Exhibit 27—Statement showing tons, ton miles, revenues, average rate per ton per mile, and average haul on intrastate carload shipments of coal 185
Plaintiff's Exhibit 28—Statement showing division of finances, individually set forth in certain other exhibits referred to..... 186
Plantiff's Exhibit 29—Total tons one mile, State and interstate, handled in North Dakota, year ending June 30, 1911, as per annual report of railroad commission 187
Plaintiff's Exhibit 30—Statement determining terminal costs per unit of traffic 188
Plaintiff's Exhibit 31—Statement showing movement costs per unit of traffic 189
Plaintiff's Exhibit 32—Costs for operating expenses and taxes compared with lignite coal rates 191
Plaintiff's Exhibit 33—Division of accounts comprising maintenance of way and structures on the Great Northern Ry. Co..... 192
Plaintiff's Exhibit 34—Division of accounts comprising maintenance of equipment on the G. N. Ry. Co. 193
Plaintiff's Exhibit 35—Division of accounts comprising traffic expenses on the G. N. Ry. Co. 194
Plaintiff's Exhibit 36—Division of accounts comprising conducting transportation on the G. N. Ry. Co. 195
Plaintiff's Exhibit 37—Division of accounts comprising general expenses on the G. N. Ry. Co. 196
Plaintiff's Exhibit 38—Statement showing amounts assigned to freight and passenger by primary accounts, as previously stated, and adding taxes to freight 197
Plaintiff's Exhibit 39—Division of accounts comprising conducting transportation on the G. N. Ry. Co. and charged to freight, as per Exhibit 36, etc. 198
Plaintiff's Exhibit 40—Statement showing freight traffic in North Dakota 199
Plaintiff's Exhibit 41—Statement showing tons, ton miles, revenue, average rate per ton per mile, and average haul on intrastate shipments of lignite coal 200
Plaintiff's Exhibit 43—Statement showing division of finances, individually set forth in certain other exhibits referred to..... 201

Page

Plaintiff's Exhibit 44—Total tons one mile, State and interstate, handled in North Dakota, as per Exhibit 40 202
Plaintiff's Exhibit 45—Determining terminal costs per unit of traffic 203
Plaintiff's Exhibit 46—Movement cost per unit of traffic 204
Plaintiff's Exhibit 47—Comparison of statutory rates and costs for operating expenses and taxes 205
Plaintiff's Exhibit "48 A"—Statement showing number of tons, ton miles, average receipts per ton, and average distance lignite coal was hauled in North Dakota in 1911 206
Plaintiff's Exhibit "48 B"—Rules for apportioning expenses to accounting divisions 208
Plaintiff's Exhibit "48 C"—Transportation expenses, State of North Dakota 214
Plaintiff's Exhibit "48 D"—Statement of amount paid employees at stations in North Dakota 215
Plaintiff's Exhibit "48 E"—Whole line traffic expenses 216
Plaintiff's Exhibit "48 F"—Locomotive, train, and car mileage in North Dakota 217
Plaintiff's Exhibit "48 G"—Statement showing interstate passenger-train revenue in the State of North Dakota 218
Plaintiff's Exhibit "48 H"—Statement showing number of tons, tons one mile, and revenue accruing to the State of North Dakota on interstate freight business 219
Plaintiff's Exhibit "48 I"—Statement showing tonnage and revenue of both State and interstate freight waybilled from branch-line stations in North Dakota during year ending June 30, 1910 220
Plaintiff's Exhibit "48 J"—Statement showing tonnage and revenue of both State and interstate freight waybilled from all stations on the Great Northern Ry. Co. during year ending June 30, 1910 221
Plaintiff's Exhibit "48 K"—Statement showing tonnage and revenue of both State and interstate freight waybilled from main-line stations in North Dakota during year ending June 30, 1910 222
Plaintiff's Exhibit "48 L"—Statement showing operating revenues local to North Dakota 223
Plaintiff's Exhibit "48 M"—Statement showing lignite coal revenue on intrastate business in North Dakota, 1907 and 1911 224
Plaintiff's Exhibit "48 N"—Statement showing revenue from all intrastate shipments in the State of North Dakota, months of October, 1908, April, 1909, October, 1910, and April, 1911 225
Plaintiff's Exhibit "48 O"—Statement showing interstate freight revenue in North Dakota, 1909, 1910, and 1911 226
Plaintiff's Exhibit "48 P"—Method of allotting interstate revenue to the State of North Dakota 227
Plaintiff's Exhibit "48 Q"—Statement of operating expenses, State of North Dakota, year ending June 30, 1911 228
Plaintiff's Exhibit "49"—Statement showing statutory rates on coal, stone, and rock, based on length of haul 232
Plaintiff's Exhibit 50—Statement showing statutory rates on coal and saw-logs, based on length of haul 233
Plaintiff's Exhibit 51—Statement showing statutory rates on coal and saw-logs, based on length of haul 234

Page

Plaintiff's Exhibit 52—Statement showing statutory rates on coal, cordwood, pine and hardwood slabs, and shingle bolts, based on length of haul 235
Plaintiff's Exhibit 53—Statement showing statutory rates on coal and hardwood logs, based on length of haul..... 236
Plaintiff's Exhibit 54—Statement of cars billed from Lehigh, North Dakota, with coal for Dickinson, from July, 1910, to June, 1911..... 237
Plaintiff's Exhibit 55—Statement showing train and car mileage for the year ending June 30, 1911..... 256
Plaintiff's Exhibit 56—Statement showing operating revenues in North Dakota 257
Plaintiff's Exhibit 56 A—Operating expenses entire line and State, maintenance of way, structures, and equipment..... 258
Plaintiff's Exhibit 56 B—Operating expenses entire line and State, transportation and traffic expenses..... 259
Plaintiff's Exhibit 56 C—Operating expenses entire line and State, general and total operating expenses..... 260
Plaintiff's Exhibit 56 D—Traffic and mileage statistics, State of North Dakota, passenger, freight, and total traffic..... 261
Plaintiff's Exhibit 56 E—Traffic and mileage statistics, State of North Dakota, locomotive, car, and train mileage..... 262
Plaintiff's Exhibit 57—Statement showing operating revenues in North Dakota 263
Plaintiff's Exhibit 57 A—Operating expenses entire line and State, maintenance of way, structures, and equipment..... 264
Plaintiff's Exhibit 57 B—Operating expenses entire line and State, traffic and transportation expenses..... 265
Plaintiff's Exhibit 57 C—Operating expenses entire line and State, general and total operating expenses..... 266
Plaintiff's Exhibit 57 D—Traffic and mileage statistics, State of North Dakota, passenger, freight, and total traffic..... 267
Plaintiff's Exhibit 57 E—Traffic and mileage statistics, State of North Dakota, locomotive, car, and train mileage..... 268
Plaintiff's Exhibit 58—Statement of operating revenues in North Dakota 269
Plaintiff's Exhibit 58 A—Operating expenses entire line and State, maintenance of way, structures, and equipment..... 270
Plaintiff's Exhibit 58 B—Operating expenses entire line and State, traffic and transportation expenses 271
Plaintiff's Exhibit 58 C—Operating expenses entire line and State, general and total operating expenses..... 272
Plaintiff's Exhibit 58 D—Traffic and mileage statistics, State of North Dakota, passenger, freight, and total traffic..... 273
Plaintiff's Exhibit 58 E—Traffic and mileage statistics, State of North Dakota, locomotive, car, and train mileage..... 274
Plaintiff's Exhibit C. W. H. No. 1—Statement showing cost of transportation of lignite coal in North Dakota, year ending June 30, 1911... 275
Plaintiff's Exhibit C. W. H. No. 2—Total operating expenses in the State of North Dakota for the fiscal year ending June 30, 1911, as shown on annual report 276
Plaintiff's Exhibit C. W. H. No. 3—Statement showing operating ex-

Page

penses of main line in the State of North Dakota for the fiscal year ending June 30, 1911 277

Plaintiff's Exhibit C. W. H. No. 4—Statement showing operating expenses of branch lines in the State of North Dakota for the fiscal year ending June 30, 1911 278

Plaintiff's Exhibit C. W. H. No. 5—Statement showing cost of transportation of lignite coal in North Dakota, year ending June 30, 1911; basis, State as unit 279

Plaintiff's Exhibit C. W. H. No. 6—Statement showing cost of transportation of lignite coal in North Dakota, year ending June 30, 1911; basis treated in detail, branch and main 280

On the 3d day of July, A. D. 1911, there was filed in this Court the following Petition, Agreement and Order upon the appointment of referee:

In Supreme Court, State of North Dakota.

STATE OF NORTH DAKOTA ex Rel. T. F. McCUE, Attorney General, Plaintiff,

vs.

NORTHERN PACIFIC RAILWAY COMPANY, a Corporation, Defendant.

Petition.

Now comes the defendant above named and petitions as follows:

1. That heretofore a petition was presented to this court by the Attorney General praying for the issuance of a writ of mandamus to require the defendant to put in force Chapter 51, Laws of 1907, known as the "Lignite Coal Act"; that upon the presentation of such petition such court issued its order to show cause why the writ prayed for should not be granted; that thereafter issue was joined, the defendant, among other things, alleging that the rates fixed in said act were confiscatory and that the law therefore was void; that a referee was appointed and testimony taken and reported to the court, and thereafter this court made and entered its judgment confirming the validity of said act and holding that the evidence offered was not sufficient to show that the rates fixed by said act were confiscatory.

2. That thereafter this defendant presented said case to the United States Supreme Court by writ of error for the purpose of reviewing the decision of this court; that said United States Supreme Court, in its decision reported in 216 United States Reports, Page 579, affirmed the decision of this court, but with a provision that the defendant might, when it felt advised it could furnish more satisfactory evidence of the confiscatory character of said legislative rates, with the approval of this court, again present the question previously reviewed and upon evidence which the defendant would deem more satisfactory; that the mandate of said United States Supreme Court affirming said judgment of this court contained a provision authorizing said further review; that following the mandate of said Supreme Court judgment was entered in this court affirming its previous judgment, and in pursuance of said mandate, but with the provision authorizing a presentation of further testimony and a further review.

3. That this defendant upon the affirmance of said judgment by the said United States Supreme Court, put into effect and has maintained the rates provided for in said legislative act, and is now in position to furnish clearer and more satisfactory evidence of the confiscatory character of the rates fixed in said legislative act; that the defendant alleges that the rates provided in said act are confiscatory and do not furnish adequate compensation for the services

rendered under the requirements of said act, all of which the defendant alleges that it is ready and able to show by clear and satisfactory evidence.

4. That the larger part of the testimony which the defendant desires to offer is to be found in the record of its offices outside of the jurisdiction of this court, and the same cannot, without great expense, be produced save through the medium of a referee.

Wherefore, Defendant prays that an order may be made herein, in pursuance of the judgment rendered herein, authorizing the taking of testimony herein upon the question of the adequacy of the said legislative rates, and that a referee be appointed by this court to take said testimony either within or without this jurisdiction and report the same to this court.

Dated June 29th 1911.

C. W. BUNN,
BALL, WATSON, YOUNG & LAWRENCE,
Attorneys for Defendant.

STATE OF NORTH DAKOTA,
County of Cass, ss:

N. C. Young being first duly sworn, upon his oath says, that he is a member of the firm of Ball, Watson, Young & Lawrence, attorneys for the defendant in the above entitled action; that he has read the above and foregoing petition and knows the contents thereof; that the same is true to the best of his knowledge, information and belief.

[SEAL.] N. C. YOUNG.

Subscribed and sworn to before me this 29th day of June, 1911.

GRACE L. MEADE,
Notary Public, Cass County, North Dakota.

My commission expires June 14, 1913.

In Supreme Court, State of North Dakota.

STATE OF NORTH DAKOTA ex Rel. T. F. McCUE, Attorney General,
Plaintiff,
vs.
NORTHERN PACIFIC RAILWAY COMPANY, a Corporation, Defendant.

Agreement Upon Referee.

Now come Ball, Watson, Young & Lawrence, attorneys for the defendant, and Andrew Miller, Attorney General for the State of North Dakota, and recommend the appointment of R. D. Hoskins as referee to take the testimony in the above entitled action and report the same to the court, and consent that he may be appointed to take testimony either in this state or elsewhere, and that he be given power to authorize the taking of testimony in his absence before any

notary public authorized to administer oaths. Notice of the presentation of the within application is hereby waived and consent given to the making of an order herein by the Chief Justice or Acting Chief Justice at Chambers, pursuant to the judgment heretofore entered in this court.

Dated June 30, 1911.

ANDREW MILLER,
Attorney General for the State of North Dakota.
C. W. BUNN &
BALL, WATSON, YOUNG & LAWRENCE,
Attorneys for Defendant.

In Supreme Court, State of North Dakota.

STATE OF NORTH DAKOTA ex rel. T. F. McCUE, Attorney General,
Plaintiff,
vs.
NORTHERN PACIFIC RAILWAY COMPANY, a Corporation, Defendant.

Order Appointing Referee.

Upon reading the petition of the defendant above named and the recommendation and consent of the attorneys for the defendant and the Attorney General, it is hereby ordered that leave be and is hereby granted to the defendant and the State to take testimony herein as authorized by the United States Supreme Court and the judgment of this court entered in pursuance thereof, and following the recommendation of the attorneys for the respective parties R. D. Hoskins is hereby appointed as referee to take said testimony and report the same to this court, and said referee is authorized to take the same in this jurisdiction or elsewhere, and he may authorize the taking of the same in his absence before any notary public authorized to administer oaths. He shall give ten days' notice to the respective attorneys of the time and place of taking same, and is given power to adjourn the hearing. Either party is authorized to notice the taking of testimony at any time upon ten days' notice to the opposite party. The referee's certificate to the testimony taken shall be sufficient proof of the regularity of its taking.

Dated July 1, 1911.

B. F. SPALDING,
Acting Chief Justice of the Supreme Court
of the State of North Dakota.

On the 2d day of January, A. D. 1914, there was filed in this Court the following opinion:

In the Supreme Court, State of North Dakota. December Term, 1913.

STATE OF NORTH DAKOTA ex Rel. T. F. McCUE, Attorney General, Plaintiff,
vs.
NORTHERN PACIFIC RAILWAY COMPANY, Defendant,
and,
vs.
GREAT NORTHERN RAILWAY COMPANY, Defendant,
and,
vs.
MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE RAILWAY COMPANY, Defendant.

Three separate actions, against the above named defendants severally, were consolidated as to proof and are decided by this opinion. These actions were begun by the State to compel observance by defendants of Chapter 51, of the Session Laws of 1907, prescribing a maximum intrastate freight rate for transportation of lignite coal and requiring that when a shipment is over more than one railroad the entire distance shall be considered as one haul and the freight rate pro-rated between said carriers.

The granting of the writs compelling observance of the statutory rate was opposed under the defense that the statute was void because so low as to be confiscatory of the property of the carriers and hence violative of the 14th amendment to the Federal Constitution. This contention was overruled by this court in the opinion at 19 N. D. 45, filed in 1909, and writs as asked by the State were ordered to issue. The defendants appealed to the United States Supreme Court, which affirmed said decision with prejudice but granted defendants permission to "reopen the case by appropriate proceedings, if after adequate trial," with the rates in force, they should see fit to again present the results under the rates as proof of the confiscatory character of the statutory coal rate. The statutory rate was put in effect and the railroads are still operating under it. In 1912 they again submitted proof to this court of the receipts for the fiscal year next preceding June 30, 1911, together with proof of expenses chargeable against the lignite coal traffic. Each road has submitted its separate proof and contention that the statutory rate does not yield sufficient revenue to defray the expenses of carriage of this coal, to the effect that the state is compelling its common carriers to transport this commodity for less than cost and therefore confiscating their property. The proof was taken, as in the original proceedings before this court, by a referee, who has reported all the testimony offered but who was not authorized to make, and who has not made, findings of fact or conclusions of law. This court has made separate and full findings of fact, under the proofs submitted, as to the effect of the rate upon each road. It finds:

(1) That as to the Great Northern Railway Company, owing to

conditions peculiar to the country traversed by it, the statutory rate yields it a reasonably fair compensation over and above all charges and expenses against the lignite traffic, and that as to it the statutory rate is reasonably compensatory.

(2) That as to the Northern Pacific Railway Company, out of total freight receipts for lignite coal amounting to $58,953., the total cost of transportation, or out-of-pocket costs, together with all fixed or overhead expenses apportionable to said lignite traffic, consumed all of said receipts excepting $847., its net profit in the handling of the lignite business for the twelve months in question. That such rate is slightly remunerative but in fact non-compensatory, considering the volume of freight carried and the property of the railroad devoted thereto.

(3) That the total Soo line freight receipts from lignite coal hauled during said fiscal year amounted to $83,670. That nearly one-half of its entire lignite coal tonnage originated at Wilton, 2,532 car loads of which was hauled only 28 miles to Bismarck and delivered to the Northern Pacific carrier for an average haul by it of 105 miles, upon which the freight rate when pro-rated as to distance, as required by the statute, has reduced what the Soo carrier would otherwise receive under the statute from 40 cents per ton to 24.5 per ton for the 2,532 car loads thus delivered to the Northern Pacific during the year. Under similar connections with the Great Northern at Minot it has there hauled approximately 500 car loads of lignite coal for an average of 12 miles, realizing therefrom 8.5 cents per ton only, or $1.83 per car load for such haul, delivered to the Great Northern road for an average haul and charge based thereon of 65 miles, from which the Great Northern received $7.53 per car load. These and many other conditions have placed the Soo line at a disadvantage in this traffic. The pro-rating feature of the statute alone has reduced its freight receipts on lignite approximately $13,000. below what it otherwise would have received, and nearly that amount under what the same freight carriage would have yielded the Northern Pacific or the Great Northern under usual conditions on their lines. Its total receipts amount to more than its actual out-of-pocket costs, or actual costs of transportation, but are from $9,000. to $12,000. less than the total costs including fixed and overhead expenses properly chargeable to the carriage of this commodity and against the earnings therefrom. That the carriage of lignite coal by the Soo line within the state during said fiscal year was not only non-profitable but occasioned a loss to it when its fixed expenses apportionable to all traffic are in proper proportion and amount assigned to and charged against the earnings from this commodity.

From the foregoing epitomized findings of fact it is held:

(*a*) The statutory freight rate is presumed to be reasonable, which presumption continues until the contrary appears and the rate is shown beyond a reasonable doubt to be confiscatory.

(*b*) Proof that a rate is non-compensatory, that is, while producing more revenue than sufficient to pay the actual expenses occasioned by the transportation of the commodity, but insufficient

to also reimburse for that proportion of the railroad's fixed or overhead costs properly apportionable to such commodity carried, is not sufficient to establish that the rate is confiscatory in law.

(*c*) In order to establish such a non-compensatory rate to be confiscatory it must further appear that any deficit under the rate affects the net intrastate freight earnings materially and reduces them to a point where they are insufficient to amount to a reasonable rate of profit on the amount of the value of the railroad property within the state contributing to produce such net earnings.

(*d*) To ascertain whether such net intrastate freight earnings are thus confiscatory because unreasonably low, the railroad attacking the legislative rate on such grounds must by proof establish the total value of its property devoted to railroad use and within the state, and then by proof establish the proportion thereof equitably apportionable as producing such net intrastate or domestic freight earnings after which the reasonableness of the gross net return from intrastate business upon the railroad investment producing it can be determined.

(*e*) For the next and final step in the proof of confiscation under the rate it must further appear either (1) that the net total intrastate freight earnings are insufficient to yield a fair and reasonable return on the fair valuation of the railroad property used to produce such net earnings, and that the commodity in question is carried for less than sufficient to meet all expenses, including out-of-pocket costs and fixed charges; or, (2) it must be reasonably certain that the loss on the commodity under the commodity rate attacked reduces the balance of the net intrastate freight earnings to a point where such total net intrastate earnings, including the loss on the commodity rate, fail to yield a fair and reasonable return on the investment, measured under the above rules, upon making of which proof the confiscatory nature of the rate is established.

(*f*) In determining the value of railroad properties proof of the so-called railroad value is insufficient to establish the fair actual value upon which as a basis apportionment of values and reasonableness of rates may be computed.

(*g*) Measured by the foregoing rules, which seem to be the law as applicable to the facts in this case, there is a failure of proof on the part of all the carrier defendants in that the Northern Pacific and Great Northern Railroads have offered no proof of the value of their property or the approximate proportion thereof utilized to produce its domestic earnings; and the Soo, while attempting such proof has failed to make the proof required by the Minnesota, Missouri, Arkansas and Oregon Rates Cases, 230 U. S. 252-560, and other Federal decisions.

(*h*) Under such failure of proof the presumption of reasonableness of the rate attacked continues and the statute must be held to prescribe a reasonable charge for the intrastate transportation of coal.

(Syllabus by the Court.)

Proceedings on application on behalf of the State for an original writ directing the observance of the freight rates in question and enjoining the collection of higher than the maximum statutory rate.

Writs granted. Costs and disbursements of State ordered taxed by the Clerk.

Opinion by Goss, J.

Andrew Miller, Attorney General, and C. L. Young and Alfred Zuger, Assistant Attorneys General, attorneys for the State.

Watson & Young, of Fargo and Charles W. Bunn and Charles Donnelly, of St. Paul, attorneys for the Northern Pacific Railway Company.

A. H. Bright, John L. Erdall and Cobb, Wheelwright & Dille, of Minneapolis, Minn., attorneys for the Minneapolis, St. Paul & Sault Ste. Marie Railway Company.

E. C. Lindley and Sanford H. E. Freund, of St. Paul, Minn., and C. J. Murphy, of Grand Forks, attorneys for Great Northern Railway Company.

(Opinion of the Court by Goss, J.)

Three separate actions are decided by this one opinion. Each was begun by the State of North Dakota, ex rel. Attorney General, against the common carriers involved, the Northern Pacific, Minneapolis, St. Paul & Sault Ste. Marie, and Great Northern Railway Companies. In 1907 Attorney General McCue petitioned this Court for its prerogative writ of injunction to restrain the defendants from further non-compliance with Chapter 51, of the Sessions Laws of 1907, that had been in effect since J-ly 1st of that year and had been ignored by these common carriers. On hearing the writs were issued as prayed for. See opinion of this Court, 19 N. D. 45, 120 N. W. 869. The railroads appealed to the United States Supreme Court, where the cases were affirmed, 216 U. S. 579, without prejudice but permission was granted the carriers to re-open the cases after the rates had been put in force for a sufficient time so that a test of the reasonableness of the rate attacked could be had from the results of operating under the rate, and accordingly the carriers have re-opened the cases, after the rate had been put in effect for over a year, and they have offered testimony touching the reasonableness of the maximum statutory rate, contending it to be so low as to be confiscatory of their property and void under the 14th amendment to the United States Constitution. The cases were tried as one action under the stipulation that any evidence in the case might be considered as proof as to any or all of the defendants. Each carrier, however, has submitted the proof following its own theory.

Separate findings are made as to each carrier. Instead of formulating the usual ultimate findings of fact we have made them evidenciary as well. This that our position and conclusions may be fully understood on facts as well as law, and also as an aid to the

United States Supreme Court, so far as the determination of the facts is concerned, assuming of course, that this case will again reach that tribunal for final determination. As requested by counsel we have made our findings so full and complete that we trust, if an appeal is taken, the review may be had almost if not entirely upon the facts found. We may here state that we believe the pro-rating feature of Chap. 51, of the Session Laws of 1907, to be the particularly objectionable feature of that legislation and that the same works injustice to the Soo line; and if we were to pass judgment on the merit of the measure we would unhesitatingly say that at least the last paragraph of the statute in question should be repealed or amended to omit the pro-rating feature thereof governing the rate of coal shipments between connecting carriers where the shipment is over the line of more than one carrier. This, however, is beside the case.

Statement of Facts as to the Northern Pacific Railway Co.

The total revenue received by the Northern Pacific Railway Company from the commodity in question, lignite coal, for the entire fiscal year, or twelve months prior to June 30, 1911, was $58,953.07, as shown by the freight receipts of the company for that period. To ascertain the amount of expense incurred and properly chargeable against this particular commodity in the earning of such gross revenue by the carriage of that commodity is the question of fact.

As a result of the painstaking work of the accounting department of this railway company, and its endeavors to render all the assistance possible to determining the matter of the apportionment of expense to this commodity, as is evidenced by the care and detail in the accounting, the information furnished by the exhibits and that the books of the company have been thrown open to the experts of the state, we are enabled to arrive, with a reasonable degree of certainty, at the proper proportion of expense that should be chargeable against the revenue received from the carriage of this commodity

From the statistics furnished we may ascertain such result by either of two methods, or by a combination of both. We refer to the division of expense as summarized under seven divisions, as calculated by the railway company, known as the Railway Method, or as divided into the 114 separate items of expense, classified into five grand divisions, under the method of the state's expert accountant Mr. C. W. Hillman. To contrast the two the railroad has classified the expenses into seven general items, as shown by N. P. Exhibit 24, as follows:

"Train operation expense	$31,146.77
Switching	4,971.00
Station service	4,182.58
Repairs to freight cars	8,674.04
Maintenance of way and structures	7,119.93
Loss and damage, traffic and general expenses	2,688.26
Total operating expenses	**58,782.57**

Taxes 4.112 per cent of revenue, $58,953.07, $2,424.15, making a total charge of $61,206.72 in earning the freight revenue from the commodity of $58,953.07, leaving a deficit according to the railroad figures of $2,235.65, upon which they urge the rate fixed by legislative enactment to be confiscatory and therefore unconstitutional.

On the other hand, according to the method used by the state's expert, Mr. Hillman, there would appear to be a net profit over all expenses and taxes of $1,493.71, which is further increased by claims made by the state on page 20 of the brief that a net profit of $2,391.63 is shown from the lignite traffic over and above total operation expenses inclusive of taxes. Of the seven classifications of expense under the Railway Method, two of them, that is, taxes in the sum of $2,424.15, and maintenance of way and structures at $7,119.93 (see page 18 of plaintiff's brief) are conceded by the state to be properly chargeable against the revenue from this commodity. The other charges are questioned, the state maintaining that train operation expenses should be charged at $30,611.38 instead of $31,146.76, a difference of $535.38; for switching the state contends that the charge should be $4,611.25 on a total of 18.455 car movements chargeable to lignite traffic, (see page 14 plaintiff's brief) instead of a charge based on 19,881 car movements amounting to $4971.00, or a difference of $359.75. As to the third subdivision, that of station service, the state, at pages 14 and 15 of its brief, contends the 4412 cars of lignite receiving services should be charged for at 36 cents per service received per car, each car concededly receiving double service, that is, on a basis of service to 8824 cars at 36 cents, instead of at 47.4 cents per car for station service, or an apportionment as contended for by the state of $3,176.64 for station service to lignite traffic, instead of $4,182.58 as allowed therefor by the company, or a difference of $1,005.94. The fourth item of repairs, renewals and depreciation of freight cars is charged to the lignite traffic by the railway company at $8,674.04, the proper charge for which is contended by the state (pages 17 and 18 of its brief) to be $7,121.54, a difference of $1,552.50. The one remaining disputed item is that including three general items, namely: loss and damage, traffic expenses and general expenses, which the railroad in this accounting has apportioned on a revenue proportion of 4.56 per cent of gross earnings, wh-ch when applied to $58,953.07 produces a charge made against the lignite traffic of $2,688.26. In such apportionment there is included, as the amount allowed for loss and damage charged to lignite freight, the sum of $1,232.40. The state contends that this item of loss and damage, in amount $1,232.40, is not chargeable to this traffic. We will now consider each classification in which the apportionment thereto of expense is disputed.

Train Operation Expense.

This involves a computation from classification of freight with reference to (1) relative cost to all other freight of transportation of lignite; (2) the average tonnage per car; (3) the average haul; (4) the train movement, whether (*a*) main line through service,

(*b*) main line way service, or (*c*) branch line service; in the consideration of all of which enters the proportion of empty car mileage to loaded car mileage. The computation which will take into account all the foregoing factors and yield the proportionate share of expense to be borne by this commodity as apportioned to the whole traffic is by the use of equated ton, car and train mileage, producing a relative cost from which, from known factors, the cost per ton mile of lignite coal can be determined, as tables in evidence show the manner of its carriage as to through, way and branch line freight, the number of cars handled, where received and where delivered, the mileage and tonnage of each, the relative train loads and the empty car haul charged against the traffic, as well as the exact amount of wages paid and cost of fuel and supplies in all freight movement within the state.

From N. P. Exhibit 18, for the fiscal year ending June 30, 1911, a summary of previous exhibits, we ascertain that 4412 car loads of lignite coal, containing 118,550 tons of coal, were hauled an average of 79.13 miles, amounting to the equivalent of hauling one ton of coal 9,380,678 miles or that number of ton miles, for which it was paid the total revenue of $58,953.07, which computed per car of approximately 27.1 tons gave $13.36 freight per car or 6.28 mills as the average freight rate per ton mile for carriage of lignite coal.

We then ascertain from N. P. Exhibit 19 that during said fiscal year there was moved within the state of North Dakota 3,081,552 tons of freight for an average haul of 227.7 miles, the equivalent of 701,732,022 tons moved one mile or ton miles, yielding a total revenue, collected in this state of $6,368,277.67. But this freight movement is divided into three classes, viz: (1) Through freight, which constituted 63.5 per cent of the entire tonnage; (2) freight originating in or terminating within the state, constituting 32.7 of the entire tonnage, (3) freight entirely local to the state, which consituted 3.8 per cent of the entire tonnage; from which tonnage, at approximately 19¼ tons per car, for all freight, we find 36,450,279 loaded cars have been moved one mile. To produce every one hundred miles of load as for all traffic the average shows the additional necessary movement of an empty car 18.43 miles, and to produce the total loaded car miles we find in addition an empty car mileage of 6,717,556, making a total car movement, loaded and empty, the equivalent of 43,168,035 car miles, of which lignite coal amounted to 346,201 loaded car miles, with 71.42 per cent thereof, or 247,261 miles, to be added for empty car mileage necessary in moving said loaded car mileage.

Considering now the relative expense incident to the movement of a ton of coal, as compared with the movement of the average ton of all freight, taking into account the fact that the average car of lignite contains approximately 27.1 tons while the average car of all freight handled contains but approximately 19 tons, we find that this difference is equalized by the fact that for every one hundred loaded car miles there is an empty car haul chargeable against the lignite freight of approximately 72 per cent, or 72 miles, while as to all freight the average empty car haul is approximately 18 per

cent only, which reduced to tonnage per mile haul, on a basis of 100 miles, gives the proportion approximately of 202 to 198. Or in other words, that it takes 202 gross ton miles to produce 100 miles of live or revenue haul in the transportation of lignite as to 198 gross ton miles to produce 100 revenue ton miles of other freight, demonstrating that there is practically little difference between the cost of hauling one ton of lignite coal and the cost of hauling the average ton of all freight in the same class of train service; and that, therefore, the relative cost of transportation of lignite coal to the cost of other freight depends upon the class of train service furnished, that is, whether the commodity is carried as (1) main line through freight, (2) main line way freight, or (3) branch line freight.

We may here properly comment upon the large proportion of empty to loaded car miles in the lignite traffic. The above percentage of approximately 72 per cent is that given by the railway company as the computation from the actual miles of empty car haul computed as to each car, as appears from tables in evidence and from the testimony of the accountants. Thus it would seem that each car hauling lignite is charged with an empty mileage of more than one-half of one freight division. At first glance it would appear that each car was charged with approximately 175 miles empty car haul, in view of the fact that, as shown by Table 6, of N. P. Exhibit 21, 2532 of the 4412 cars hauling lignite were received loaded by this carrier from the Soo line at Bismarck; but we assume that for each one of these 2532 cars so received necessarily an empty return trip for a great portion of the entire loaded distance, or the percentage of nearly 100 of the loaded distance, is charged for empty mileage, as necessarily all Soo freight cars must be returned to Bismarck for delivery to the Soo road. This probably increased rather than diminished the empty car haul properly chargeable. In this connection, too, no empty mileage without the state has been added in charging the empty car mileage from the place where the car had last delivered its load back to the mine, because the total return trips of the empty cars received from the Soo at Bismarck, figured as empty for 100 per cent of the loaded haul for such cars alone, amount to 265,394 car miles of empty haul, or 18,133 miles more than is charged for all empty haul. (See N. P. Exhibit 18.)

For comparison we here state that the empty car mileage of the Soo amounts to approximately 20 per cent more than that figured as the empty car mileage of the Northern Pacific, but the average loaded car haul of the Soo is but 41.76 miles (plaintiff's Soo Exhibit IC) as against an average of 80 miles for the Northern Pacific. The Great Northern road, which makes no charge until the empty car reaches the division upon which it is to be used, has an empty car mileage of 30.9 per cent to a loaded car mileage of 69.1; figured on total car miles empty and loaded of 100 per cent, or figured on a basis of empty to loaded car haul, with a basis of 100 for the loaded car haul, the empty car mileage would be about 43 per cent of the loaded car haul, and with an average loaded car haul

for lignite coal of 63 miles. This difference in the empty car haul between the Great Northern and the other two roads is due in the main to different conditions prevailing along its road rather than due to any difference in system of computing empty car mileage against the lignite traffic. We take judicial notice that the population along the Great Northern lignite market would average three times as dense as along the Northern Pacific or Soo lines. Accordingly the Great Northern has the advantage in freight consumed, leaving more empty cars ready for local loading. Besides, eastern coal is used on the Great Northern in greater proportion than in the Northern Pacific or Soo lignite territory, leaving empty coal cars for use. The same is true as to lumber shipments. We conclude the difference in empty car mileage is actual and arises from conditions favoring the traffic in such respect on the Great Northern.

Having shown, then, that the empty car haul overcomes the advantage in favor of lignite coal arising from the half greater load in tons per lignite car than average freight, so that lignite is carried on an average relative cost per ton on an equality with all other kinds of freight, leaving out the question of the kind of train on which the same is carried, we now consider the effect of the train service rendered to lignite upon the cost, compared to the average cost of service of all other freight. And to determine this reference is had to N. P. Exhibit 20, showing the comparative cost of transporting freight in main line way, main line through and branch line freight trains, also operating expenses within or touching North Dakota for train service and engine service expenses, including repairs of engines, wages of trainmen, fuel and all supplies used in such transportation. Consulting said table we find an entire mileage within the state for the months of November, 1910, and April 1911, conceded by all parties to be representative months reflecting a fair average of traffic conditions for the year, of, for main line through freight, 182,694 train miles conducted at an annual computed (not estimated) cost of $139,831.74, or at an average cost per train mile of 76.5 cents, which reduced to ton miles by multiplying the train mileage by the average gross train load in tons, 1476, produces 259,787,614 tons a carried one mile or ton miles of main line through freight, yielding the result of a carriage of 100 tons one mile for an actual cost of 5.18 cents.

Treating main line way freight in the same manner and from the same table we find 38,910 train miles carried for $35 982.94, or an average cost per train mile of 92 5 cents. But the average load per main line way freight is but 669 tons as compared with 1476 tons of main line through freight. So that the ton miles produced by multiplying the train miles by the average train load of 669 tons produces but 25,313,590 ton miles, or tons carried on- mile, at an average actual cost per 100 miles of 13.83 cents.

Treating branch line freight in the same manner and from the same exhibit we ascertain a train mileage of 72,143 was conducted at an expense of $45,129.62, or an average actual cost per train mile of 62.6 cents. But here again the average tonnage is much less than the main line through, it being but 404 tons per branch freight line train as against 1476 of main line through, and 669

of main line way freight, which produces an actual cost for carriage of 100 tons one mile, or 100 ton miles, of 15.5 cents on branch line freight service.

The actual cost per 100 ton miles having been found at 5.18, 13.83 and 15.50 cents respectively, of the three classes of service, we find they compare as follows, using 100 per cent as the cost of main line through freight, viz: 100 for main line freight, 266 for main line way freight, and 299 for branch line freight; and that the relation in loads as to ton miles between main line through and main line way freight is as 1476 tons is to 669 tons, or as 221 is to 100. The foregoing is without reference to lignite traffic but merely to obtain the equated expense and relation between all freight.

It is in the application of the foregoing figures to the actual car mileage of lignite freight, classified with reference to main line through, main line way and branch line freight, that the difference arises between the state and the defendant company. The latter had taken the proportions arrived at as to all freight for the representative months of November and April and applied the same to the entire haul of lignite for the entire fifteen months, using in the application the actual car mileage of lignite for said entire period. It produces the following figures: For main line through actual car miles 132,346, at a relative cost of 100 equal an equated car mileage of 132,346 main line way actual car miles 192,246 at a relative cost of 267 as compared with main line through yields in equated car miles 513,297. In branch line actual car mileage 39,892 at a relative proportion of 299 to main line through, yields 119,277 in equated miles, all equated as on the proportion of main line through freight. Totaling we find the actual car miles, 364,484, when equated, to yield a total of 764,920 car miles, which amounts to 210 per cent of the actual total car mileage. All of which, being the actual and equated mileage in the transportation of lignite coal for the fifteen months' period, is the equivalent of saying that the transportation of lignite costs 210 per cent of the equated ton mile cost of all freight.

Turning now to the third subdivision of Northern Pacific Exhibit 22, we find the actual ton mile of all freight moved in North Dakota during the fiscal year in question (see page 206, abs. state's witness Johnson's testimony) to be 701,732,022 ton miles, of which, as appears from N. P. Exhibit 20, 91.121 per cent of 635,843,835 tons carried on the main line at a relative cost of one or 100 per cent equals 579,387,280 as the equated revenue ton miles; and of said total actual ton mileage on the main line 8.879 per cent was carried on main line way trains at a relative cost of 267 per cent of the cost of main line through trains, or 267 times 56,456,575 tons of main line way freight actually carried, equaling 150,739,055 equated revenue ton miles on the basis of main line through freight; and that on branch lines 65,888,167 miles were actually carried at a relative cost of 299 per cent of the cost of main line through, yielding 197,005,619 equated revenue ton miles on the basis of main line through. A total of which equated revenue ton miles produces 927,131,954 equated revenue ton miles, carried at a total actual train operation expense for North Dakota for the fiscal year

ending June 30, 1911, of $1,465,908.88, (see N. P. Exhibit 23) the cost of which calculated per 100 ton miles amounts to 15.811 cents, which applied to the total ton miles of lignite carried for the fiscal year, to-wit, 9,380,678, multiplied by 2.1 or 210 per cent, the ascertained ratio of expense that transportation of lignite coal bears to the equated cost of all freight (N. P. Exhibit 22) assigns the total relative cost of $31,146.75 as the approximate amount of the total train operation expense of $1,465,908.88 properly chargeable to the lignite traffic for that year according to the railroad computation.

But in the foregoing computation the railroad company has used, as appears from Exhibits 17 and the second subdivision of the first page of Exhibit 22, the actual lignite car mileage, classified to main line through, main line way and branch lines, for a period beginning April 11, 1910, and running to June 30, 1911, or for more than one fiscal year by two and two-thirds months, and that instead of the figures equated on the second subdivision on the first page of Exhibit 22 we should take the loaded car mileage divided in the main line way and through and branch line trains for the twelve months commencing July 1, 1910, and running to June 30, 1911, which carried forth produces the following as the equated car miles: Main line through actual car mileage, 129,648, at a relative cost of 100 per cent, yields 129,648 in equated car miles; 178,166 main line way car miles at 267 per cent yields 475,693 equated car miles; and actual car miles of branch lines, 38,387, at 299 per cent, yields 114,777 equated car miles, or a total of 346,201 actual car miles for main line through, main line way and branch lines, for an equated car mileage of 720,118, or the relationship of 100 to 208, equivalent to a finding that the transportation of lignite coal costs 208 per cent of the equated ton mile cost of all freight. Turning again to N. P. Exhibit 20 we find the total ton mileage carried on main line through trains was 269,656,344, procured by multiplying 182,694 train miles by 1476 tons, the average gross train load in tons on main line through freights. Treating main line way freight in the same way we find it amounts to 26,030,790, procured by multiplying 38,910 train miles by 669, the average tonnage per train. Treating branch line freight the same way we find 29,165,972 as the ton mileage on branch lines, obtained by multiplying 72,143, branch line freight train mileage, by 404, the average branch line train tonnage, which reduced to per cent, treating 100 per cent as the total of the three, resolves to 83.01 per cent for main line through trains, 8.01 per cent for way freight main line, and 8.98 per cent for the branch lines as the proportionate carriage of ton miles for the respective services. But we find that, although there is an error in Exhibit 20 of nearly ten million tons in the ton mileage, the correct figures were used in ascertaining the cost per 100 ton miles at 5.18 cents. And the same is true of the relative cost per 100 miles of way and branch line freight. And the proportions arrived at on Exhibit 20 are approximately correct at 100 per cent, 267 per cent and 299 per cent, leaving as the only correction the application of 208 instead of 210 per cent to the equated

ton miles of 9,380,728, the total lignite ton miles, (see N. P. Exhibit 18) to the total cost as ascertained by equated miles of 100 ton miles, or 15.811 cents, yielding $14,831.75. But the relation of cost of lignite haul to that of other traffic is as 100 is to 208, hence the $14,831.75 must be increased 108 per cent, or a total of 208 per cent thereof taken, which produces $30,850.12 as the actual cost of train operation to be apportioned to the lignite traffic under the railroad Method adopted by both experts, or a difference in favor of the state on the computations of $296.64, occasioned by the application of the relation of 210 instead of the correct relation of 208 per cent as the relative cost of lignite to all other freight traffic. We find, then, that $30,850.12 was the approximate actual expense of train operation during the fiscal year properly chargeable against the revenue received from the lignite traffic haul.

Switching Charges.

The next point of difference between the state and the company concerns switching charges. Upon this we accept the testimony of the railway company as the fact that in the three switching yards, Fargo, Jamestown and Mandan, the total cost of switching in making 599,022 car movements at these points was $149,471.21, approximately 25 cents per car movement. Referring to N. P. Exhibit 21 we find 4412 cars of lignite were moved during the fiscal year, of which amount 2532 cars were received at Bismarck from the Soo line, which cars so received concededly received two switching movements or 5064 movements at Bismarck; and of the total cars moved 3296 received four movements each, or a total of 13,184 switching movements; and that there was a single switching movement, incident to making and breaking trains in passing through terminals, (as shown by tabulations of actual movements) of 1636, giving a total of 19,884 switching movements at 25 cents per movement or an expense of $4,971 chargeable to switching alone. Although the state in its brief contends this to be an overcharge it seems to have been conceded as correct by the state's expert, Mr. Hillman. (See page 526 abs.)

In this connection let us say that no comment is made either in the testimony or in the briefs as to whether the Northern Pacific share of the switching charge for 2532 cars, allowed at $2.50 per car by the rate bill in question, Chap. 51, S. L. 1907, to be apportioned between the carriers, has been figured in as revenue from the haulage of lignite coal. It is true that in the tables and in the testimony of Mr. Johnson, on page 182 of the abstract, statements are made "that the total revenue of the Northern Pacific from the movement of the coal was $33,904.20," but this is said in connection with freight earnings and average haul. This item alone would, assuming it was divided equally between the Soo and the Northern Pacific companies, amount to $3,165, each. However, counsel have assumed that this has been properly credited to the lignite revenue and calculations made from N. P. Exhibit 1, in connection with the statutory rate allowed for carriage apportioned between the two carriers as to mileage, figuring at 27.1 tons per car, the cost would be

approximately the $14.71 revenue per car for those received from the Soo line, inclusive of the switching charges. On such evidence and from such deductions we deem it established that the switching charge has been computed in and is a part of the lignite revenue, the total of which is $63,904.20, instead of being credited to the general earnings fund in excess of $6,000,000 in this state.

Station Service.

The next general subdivision of expense is that apportioned to station service. We find that for the fiscal year station service was rendered within the state to 116,174 cars, 89 per cent of which, or 103,395, contained car load tonnage, within which class the 4412 cars of lignite fall, and 11 per cent, or 12,779, contained merchandise or less than car load tonnage. For the car load freight, as lignite coal, no station handlers are necessary, but for the merchandise or less than car load tonnage freight handling cost is equivalent to 50 cents per ton for an average of 19.5 tons per car; or in other words, it approximately takes the same expense to unload the average car load of way freight of merchandise that it does to render station service to twenty cars of car load lots freight of the classification of lignite coal. We can, then, equate either by car loads or by tonnage and arrive at the same result. Using car load lots as has the state we add to 103,395 car loads the result of 12,779 less than car load lots multiplied by 20, or 255,580 equated car loads, making a total of 358,975 equated car loads, which bore a total actual expense of $184,472.24, including therein, of course, freight handlers' charges, which equated on car load lots produces the 255,580 equated car loads. Dividing the total expense by the total number of car loads we ascertain an equated or average actual expense of 47.4 cents per station service per car; and as each car of the 4412 received station service at the point of origin, and the point of destination station service was rendered to the equivalent of 8824 cars at 47.4 cents, or a total charge therefor of $4,182.58.

The state contends at pages 14 and 15 of its brief that the total number of equ-ted cars should be applied to $129,134.24, the station costs, from which freight handlers' charges of $55,338 have been omitted. But the above computation has in effect already deducted the freight handlers charges by equating the number of cars having less than car load tonnage. In other words, in considering the 12,779 cars containing less than car load tonnage on a basis of 20 to 1 allowance was thereby made so that the application of the total equated car loads to the amount of expense with freight handling expenses deducted would be approximately the equivalent of deducting it twice.

Repairs, Renewals and Depreciation of Freight Rolling Stock.

The statistics in evidence show that for the fiscal year the freight car repairs, renewals and depreciation apportioned to North Dakota on a basis of total revenue car mileage, both loaded and empty, was $518,679.37. This expense applied to a total freight car mileage

of 43,168,037 miles yields a charge of 1.2 cents per car mile for this class of expense. Applying this cost per mile to the 593,462 car miles, both empty and loaded, actually traveled by the 4412 cars in the fiscal year in delivering their lignite freight, yields a total expense of $7,121.54. Thus far both state and railway company agree, but the state contends that this is all that should be charged for this class of expense while the company claims that inasmuch as under the car services rules 48 hours of free time is allowed for loading, and the same amount for unloading, a total of four days free time for both, that, therefore, the short haul business receives greater use of a freight car than does the long haul business, and applying to said four days free time the average travel of a car of twenty miles per day the company would add to the actual mileage a charge for mileage of 80 miles per car and charge therefor at 1.2 cents per mile, which figured on the basis of the average haul of all cars, both loaded and empty, would necessitate the increase of the above expense by 21.8 per cent thereof or $1,552.50. And the question is whether this item is properly chargeable. We believe it is not. This general class of expense arises from use of freight cars, it costing 1.2 cents per car mile for their use. Concededly they are idle during the four days of free time and are not in use. We can see no foundation in fact upon which to base this charge and therefore disallow it and find that the total charge be allowed against the lignite traffic revenue because of freight car repairs for the fiscal year to be $7,121.54.

Traffic and General Expenses and Loss and Damage.

The next general division of expense is subdivided into three separate tems as, (*a*) traffic expenses, (*b*) general expenses, and, (*c*) loss and damage, for all of which the company seeks to charge the lignite traffic with 4.56 per cent of $58,953.07, the total revenue, or $2,688.26. The state concedes the fact that of this charge that apportioned to traffic and general expenses, in the sum of $1,456.14, is properly chargeable. This is obtained by charging the lignite traffic with the proportion that the sum of the traffic expenses and general expenses, respectively $72,215.97 and $84,865.06, totaling $157,082.03, bear to the total freight revenue of $6,368,278, or a proportion of 2.47 per cent; which applied to the gross earnings of the lignite traffic of $58,953.07 yields $1,232.12. The company claims that this percentage should be increased by the percentage ascertained in the same way when $133,386.33 of loss and damage to freight has been so apportioned, which amount of loss and damage the company claims is a general overhead charge to be borne by all traffic in the proportion that the revenue from the traffic or commodity received bears to the entire freight revenue. On the contrary the state contends that as the freight rate on each commodity has been fixed with reference to the usual loss and damage shown by experience to result thereto in carriage, that this general item of loss and damage has already been paid by the freight collected on commodities on which the loss and damage resulted; and that as no loss and damage is shown to have occurred arising from the carriage of lignite coal, that is, no lignite coal carried has been damaged

or lost, the traffic in that commodity is not chargeable with any loss or damage. We believe the state's contention to be sound and unanswerable. Counsel for defendant company, in argument and in briefs in support of its contention, have given, as an illustration, damage arising from the wrecking of a car load of silk in transit by running into a freight train carrying lignite coal, and urge that as the cause would be the obstruction causing the wreck the damage resulting should be charged to all freight, because if charged to the lignite traffic causing the wreck all the revenue from said traffic for years might be more than equalized by the loss. Or if charged against any commodity there would result perhaps a profit in carriage one year while the same rate considered with the loss in the next year might result in a loss and be confiscatory according as loss or damage might occur. The basic fallacy in counsel's assumed case is that the freight rate on the train load of silk was fixed with reference to, and included as an element and item of charge therefor based upon probabilities, all dangers of wreckage. When application was made to the common carrier to transport this train load of silk, possibly from Seattle to New York City, so far as fixing the freight rate on the silk was concerned in practical effect the carrier had its option of carrying the train load of silk with the risk omitted, and on that basis determining the freight rate with the risk omitted and then insuring the arrival of the car at its destination and paying therefor and adding the amount of such insurance as an expense to the freight rate fixed without reference to such insurance, or on the other hand, the carrier could do, as presumably they always do, not insure the arrival but charge therefor, adding the charge to what would otherwise be the fixed freight rate, thus carrying the insurance themselves. In fixng the freight rates on every commodity carried this risk must be and is considered and freight rates fixed with reference thereto. This is one of the elementary considerations in freight classifications. The source of this considerable item of expense sought to be charged as an overhead expense on all traffic is not shown but it does appear that no portion of it arises from the lignite traffic; and presumably it has all been paid by rates fixed on other commodities on the basis of a reimbursement for such costs. And as they have been paid the lignite traffic should not be charged with any part thereof when we are determining, as we are, the reasonableness of the rate that the legislature has said this lowest class of freight should bear. Doubtless some small charge for loss and damage should be made against this traffic, but the same should be sufficient only to reimburse for the loss and damage in the lignite traffic. As none is shown to have occurred during an entire fiscal year the amount of an allowance in the rate for loss and damage would be no more than conjecture; and as the company makes no claims therefor based upon any probabilities of loss and damage in the lignite traffic itself we will allow none. Accordingly we refuse to allow the $1,232.12 item of cost urged by the company as arising from general loss and damage of freight apportioned to the state. However, the revenue

from the lignite traffic should be charged with the traffic and general expenses in the sum of $1,456.14.

To recapitulate we find the following to be correct charges against the revenue of the Northern Pacific Railway Company received from the lignite traffic, to-wit:

(1) For train operation expense, $30,850.12; (2) switching, 19,884 car movements at 25 cents, $4,971.00; (3) station service, 4,412 cars times two at 47.4 cents, $4,182.58; (4) freight car repairs, renewals and depreciation, $7,121.54; (5) traffic and general expenses (no loss and damage allowed) $1,456.14; maintenance of way and structures, 9,380,680 ton miles at .00759 per cent, $7,119.93; (7) taxes, 4.112 per cent of gross earnings, $58,953.07,—$2,424.15; making a total charge against the revenue from such traffic of $58,125.46. Deducting this amount from the $58,953.07, total revenue from said traffic, leaves the traffic yielding a net profit of $847.61 over and above all expenses and charges. With the finding of the foregoing facts the discussion of the law applicable thereto will follow after findings of fact have similarly been made as to the lignite traffic in the cases of State ex rel. McCue v. Minneapolis, St. Paul & Sault Ste. Marie Railway Company, and State ex rel. McCue v. Great Northern Railway Company, companion cases to the one in which the above findings are found and tried jointly therewith under the stipulation of counsel that the evidence in each case should be considered in all three cases so far as applicable, the cases for all purposes being by stipulation consolidated.

Statement of Facts as to the Minneapolis, St. Paul & Sault Ste. Marie Railway Company.

We are satisfied that this railway company has furnished all the statistics at its command tending to throw light on whether the lignite traffic is carried within this state at a profit or at a loss. But the statistics in the main amount to but estimates, inasmuch as the known bases are wanting from which to make definite calculations. This is understood and practically admitted by the railway officials themselves. The testimony of Mr. Tombs, auditor and leading statistician of the defendant company, in the examination conducted by the railroad's own counsel, virtually admits the impossibility of arriving at the cost of carriage of this commodity from the statistics at his disposal, and that any result must be merely approximate and deductions from the statistics concerning the operation, expenses and profit of the whole system instead of that portion of the system within this state, and must of necessity be too indefinite to be classed as even an approximate result of the cost of transportation of this commodity. (Pages 122 to 133 of abstract.) We have examined all of the tables of statistics furnished and are forced to the same conclusion. And this necessarily rejects in toto the gross earnings theory which counsel for this railroad have endeavored to sustain as applicable under its proof. The gross revenue method is properly applicable to the determination of certain

matters such as the expense for taxation, where a true relation exists between the basis taken and the result sought. It is possible that if this was a case to determine a commodity rate applicable to the entire Soo system, with the commodity moving with a reasonable uniformity over the entire system, or under conditions not peculiar to a particular locality, that the gross revenue theory might be of value. But to determine the reasonableness of a freight rate on a single commodity moving within a prescribed radius of two hundred miles from the place of its production, and that wholly within a single state and of no greater amount or proportion of the total traffic than that of lignite coal, and with no basis figures except gross expenses and gross earnings, it is impossible to get even approximate results. At best they must amount to mere estimates. To illustrate, under the application of the revenue basis as made by the company in Tables No. 2, 3, 4, 5 and 6, Group A., and other tables into which the deductions are carried, all coal carried during the summer months returns a profit regardless of the rate, while all coal carried during the six other months of the year must return a loss even though the rate be twice that of the summer months.

However, there is in the testimony some satisfactory proof on a portion of the issues involved. During the fiscal year in question, from June 30, 1910, to June 30, 1911, this railroad transported 205,038 tons of lignite in car loads of approximately 27.1 tons per car, or 7,566 car loads, for an average haul of 41.76 miles for a gross amount of $83,670, revenue. From N. P. Exhibit 18 we learn that 2,532 cars, or over one-third of this entire traffic, was delivered at Bismarck by the Soo Line to the Northern Pacific, all of which came from Wilton under a 28 mile haul, the equivalent of 69,593.5 tons, or 1,948,625 ton miles, (See Soo Exhibit 35) and for which the Soo line did not collect the rate for the ordinary haul of 28 miles, but instead collected such portion thereof as the haul actually made bore to the entire haul made by both roads, as required by the rate law in question. Turning to N. P. Exhibit 18 we find that the average haul for this identical portion of the traffic carried by the Northern Pacific Railway Company was 105 miles approximately, which, when 28 miles is added, makes a total haul of 133 miles, on which haul the Northern Pacific received on an average $14.75 per car load, inclusive of its share of a $2.50 switching charge. By reference to the statutory rate we find 71 cents per ton to be the charge for the entire haul, to which the $2.50 added makes an entire charge of $21.38, of which for this considerable volume of traffic the Soo road has received the difference between that amount and $14.75, the Northern Pacific charge, or $6.63 per car for hauling, or an average of 24.5 cents per ton for transportation of this coal said 28 miles. And as local conditions are matters of which the court will take judicial notice we know that nearly 100 per cent empty car haul was necessary to earn this amount, as the north bound Soo freight from Bismarck to 28 miles north of Wilton must be practically nothing compared with this number of cars, 2,532, necessary to be used at Wilton for this haul. This item constitutes over one-third of car loads handled and over one-

fifth of the entire revenue received from lignite haul for the year, and we are convinced that this common carrier in particular has a cause of complaint as made in the testimony of the president of the road wherein he states in substance that in operation the rate law as applied to their traffic is burdensome and renders the same unprofitable because of "the feature of the North Dakota law making a joint rate over two railroads for a distance," thereby compelling such transportation of coal to such an amount and for what would otherwise be about usual switching charges. The facts warrant at least the following investigation of the effect of the prorating portion of the rate statute.

The testimony is that the Missouri river division is the most expensive in operation and least remunerative of any of the divisions of this railroad, and that upon the Missouri river division three-fourths of the entire lignite traffic is hauled for two-thirds of the revenue received from lignite, leaving to the other one-fourth of of that traffic one-third of the earnings from this commodity. From this we can with reasonable certainty determine that another 2,500 cars of lignite handled on the Missouri river division, over and above the 2,532 cars used to make the lignite haul from Wilton to Bismarck on the Missouri river division, must also operate at either an actual loss or a non-compensatory rate. And comparing conditions and traffic of this road with the Northern Pacific, operating in virtually the same territory, and considering that the average haul of this commodity clearly favors the Northern Pacific railroad while the empty car haul must be equal and probably greater on the Soo than the Northern Pacific, we are satisfied that as to the Missouri river division lignite must be carried at an actual loss under the statutory rate and its application to the actual conditions under which the traffic is handled. Certain it is that the balance of lignite traffic in the state is insufficient in volume and revenue to make the traffic as a whole more remunerative on the entire Soo road within this state as to all lignite carried than said lignite traffic is to the Northern Pacific road.

The average haul by the Northern Pacific of this lignite received from the Soo comes under a long or division haul and may be classified either as main line through freight or as main line way freight, as its average haul is approximately 105 miles for the whole 2,532 cars so received, as to a 44 mile average haul for all other lignite hauled by the Northern Pacific, as appears from N. P. Exhibit 18. From this exhibit we also learn that the Northern Pacific Railway Company received $14.75 per car as an average charge for these 2,532 cars, or a total revenue of $37,347., from this portion of the lignite traffic received directly from the Soo road, leaving only $21,606.07 of a balance of lignite traffic revenue collected from its own road to make up its total revenue from lignite haulage of $58,953.07. For its portion of the haul the Soo gets, as heretofore stated, $6.63 per car, or 24.5 cents per ton for transporting the coal 28 miles, where if it were not for the last paragraph of the rate statute in question it would receive 40 cents per ton and any switching charges, or, exclusive of switching charges, $10.85 per car, for

what it now receives $6.63 per car for one-third of its entire traffic in this commodity; and for which, but for this statutory provision requiring the rate to be figured over both carriers as a single haul and apportioned between them, it would have received in revenue $27,446.88 exclusive of switching charges, while instead we find that including its share of switching charges it has received but $6.63 per car for 2,532 cars, for a total revenue therefrom of $16,787.16, or $10,659.72 less than it would have received had it delivered the coal to purchasers at Bismarck and collected the statutory freight therefor and made no charge for switching expenses. With these figures and results, of which there can be no question, we can make the following calculations as to whether the Soo rate is remunerative or otherwise for at least this portion of its traffic. Let us compare with the Northern Pacific first as to cost of conducting transportation and apply the results to this traffic from Wilton to Bismarck. We have after considerable investigation determined that the expense of conducting transportation, as one item only of the aggregate expense, on the Northern Pacific has cost that road $30,850.12 in earning the gross freight revenue of $58,953.07; or in other words, for every dollar of revenue received by the Northern Pacific road from the haulage of this traffic in this state it has expended for conducting transportation 53.07 cents. We have also determined that the cost for operating expenses per ton revenue mile on the Northern Pacific road of all freight is 1.5811 mills or that fraction over 15 cents per 100 ton miles; and that the relation between the relative cost of lignite and all freight is that of 208 to 1. Increasing the rate per ton mile by 208 per cent we find a cost of 33 cents per 100 car miles if this traffic was carried on the Northern Pacific road. Each car load of lignite contains 27.1 tons, which carried 28 miles results in a ton mileage of 759 tons per car, the cost of which, figured at 33 cents per 100 ton mileage, gives for operating expense alone an actual cost of $2 51. As this is but 53 per cent of the total cost of carriage on the Northern Pacific as heretofore determined, we find that the whole cost will equal $4.73 without taking into account any classification of the service and of the fact that this is branch line service and after its delivery to the Northern Pacific is carried as either main line way freight at a great cost reduction or carried at a still less expense as main line through freight, the average haul being 105 miles, approximately a freight division, which would ten- to classify it, or a considerable portion of it, as main line through. Now applying the relative cost of main line way freight to this we find the cost exclusive of switching would amount to $5.85 per car, the Northern Pacific relation of main line way to branch line freight being in the proportion of 266 to 299. But if we regard this when on the Northern Pacific as through freight and compare this haul with the result of main line through freight, which would be more exact when the average mileage is considered, the computation would be made on a basis of relation of cost of 100 for main line through to 299 for branch line way, which would be practically the equivalent of taking three times this $4.73, or $14.14 per ton, as the cost of transportation when pre-

centages are figured accurately. Undoubtedly this is too high that the proper costs is about an average between the way line freight cost of $5.85 and this cost of 1.273 cents per revenue ton mile, figured on the 759 ton miles per car transported from Wilton to Bismarck at 27.1 tons per car freight for 28 miles, gives $9.66 cost per car freight that would have been the cost had the same haulage been made on the Great Northern line, assuming their branch line rate of cost as correct. The statutory rate for this distance yields a revenue of $10.84, which at a cost of $9.66 per car would leave a reasonable revenue of $1.18, or less than four cents per ton profit for the carriage of this commodity a distance of 28 to 30 miles. Instead, if we thus assume the cost to be $9.66 per car, carried for $6.63 under compulsion of the statute, we find it has been forced thereby to suffer a loss of $3.03 per car, which figured on 2,532 cars shows a loss on this basis of $7,671.96. And the above computations omit the fact that the empty car mileage haul chargeable against this particular movement must approximate 100 per cent while in the figures applied the Northern Pacific empty car haul was approximately 71 per cent only. We may assume, however, that some of this is offset by the "turn around" service testified to by Mr. Little as frequent on this particular haul. (Abs. 352.) But it is apparent that if it was legislative wisdom to fix the statutory rate for this haul for this commodity at 40 cents per ton for a haul from 25 to 30 miles, then when the volume of this particular haul is considered it would seem that it was far from wisdom to compel an apportionment of such receipts and their reduction from 40 cents to 24.5 cents per ton for said distance where the traffic is delivered to a connecting carrier. The practical operation of the statute is thus to reduce the rate as here and give more than its just proportion of the freight revenue to the connecting carrier. As heretofore observed, from the fact that the average haul of this traffic delivered by the Soo to the Northern Pacific road is approximately 105 miles, while the average haul of all of its other traffic is less than 45 miles, the Northern Pacific gets a ton mileage of 7,164,258 from this traffic originating on the Soo, while from all of its other lignite traffic its ton mileage is only 2,216,420. Therefore it would seem that the traffic thus obtained by the Northern Pacific from the Soo does not operate to reduce the freight receipts of that road as materially as it does that of the Soo, which road, from the proportionate very short haul of the same freight movement, has correspondingly suffered a considerable loss.

Let us further analyze the lignite traffic on the whole Missouri river division with particular reference to the effect of the short haul and volume of lignite traffic from Wilton to Bismarck delivered to the Northern Pacific.

From Soo Exhibit 50 we ascertain that all lignite carried on this division amounted to 139,899 tons, carried an average of 47.46 miles, producing a live ton mileage of 6,639,737 ton miles, for which a total freight revenue amounting to $53,993.72 was received. What the average car load of lignite on this division amounted to [illegible].32 tons. Now turning to Soo Exhibit 35, Table 27, page 1, we ch[illegible]

find the total shipment from Wilton to Bismarck for delivery to the Northern Pacific amounted to 69,593.75 tons, carried 28 miles and amounting to 1,948,625 ton miles. Deducting this tonnage and ton mileage from the total division tonnage and ton mileage we have remaining respectively 70,306 tons yielding a gross mileage of 4,691,112 ton miles of other lignite shipments for the year. But of this 70,306 tons we find more than one-half thereof, or 37,173 tons, as appears from Soo Exhibit 35, page 1, third item, was delivered to local Bismarck dealers, under a shipment of 28 miles from Wilton, yielding 1,040,844 ton miles. Now deducting this Bismarck local ton and ton mileage we have respectively 23,133 tons with a ton mileage of 3,650,268 remaining for the entire division; so that from the output of the Wilton mine delivered at Bismarck, 69,593 tons to the Northern Pacific connecting carrier and 37,173 tons for local consumption, all for a haul of 28 miles for an aggregate ton mileage of 2,989,469 ton miles out of a total lignite traffic on that division of 6,639,737 ton miles, leaving of the total balance of lignite traffic for the division 3,650,268 ton miles, produced from 33,133 tons, or an average haul for the one-fourth of the lignite traffic remaining on the division of 110.16 miles, after the deduction of the Bismarck local and the Bismarck joint freight. Reduced to freight receipts we have heretofore demonstrated that the Soo road received from the joint Northern Pacific haul, as its share thereof, $16,787.16; and from the 37,173 tons delivered in Bismarck for local consumption, at the statutory rate of 40 cents per ton, it received $14,869.20, or total freight receipts from Bismarck of $31,656.36; and on the balance of the division from the lignite traffic the difference between that amount and $56,993.72, or $25,337.36. Of course the above computation does not include any transfer switching charges or other switching charges made and *g*urned into the lignite freight revenue. It is interesting to note, however, that three-fourths of the tonnage of this division is for a 28 mile haul from Wilton to Bismarck, for over one-half of which the Soo must further reduce its receipts by division with the Northern Pacific connecting carrier from the statutory rate of 40 cents to 24.5 cents per ton in compliance with the statute. Further, that of the total 139,899 ton lignite haul on the Missouri river division all but less than 1000 tons i*t* the output of the Wilton mine, as will be observed by a study of Table 27, Soo Exhibit 35, pages 1 and 2. With this in mind it is interesting to note, as verifying our conclusions, that the average haul aside from the Bismarck local and joint haul is 110 miles, while the average haul of the same coal from Bismarck by the Northern Pacific connecting carrier is 105 miles.

The deductions from the foregoing establish that three-fourths of the lignite freight on the Miss uri river division is carried at approximately one cent per ton per mile from Wilton to Bismarck, while if the statute did not require the pro-rating for the one-third of the traffic delivered the Northern Pacific it would receive the statutory rate of 40 cents per ton for 28 miles or 1.44 cents per ton for the same carriage. The foregoing figures and also matters of which we may take judicial notice are conclusive that the conditions existing on the Northern Pacific and the Soo are similar,

both roads traversing virtually the same lignite field, and that of the two the Northern Pacific can carry at the least expense. And in the Northern Pacific case we have seen that the cost of similar carriage on that road is about that of the Great Northern, running from 1.2 to 1.3 cents per revenue ton mile. Therefore, out of the approximately 140,000 tons of lignite hauled on this division all but approximately 33,000 tons must have been hauled at an actual and considerable loss, and as to freight receipts the road lost money while earning $35,000 of the $57,000 gross earnings from the lignite traffic on this division; and that in earning $17,000 of the $35,000 upon which it lost it lost approximately $11,000 over what it would have received but for the compulsory pro-rating with the connecting carrier. Comparing also with our conclusions in the Northern Pacific case, to the effect that that road under more favorable conditions, inasmuch as it is not forced to share its rate computed upon a basis of a short proportion of a connecting carriage haul with any other railroad, but on approximately the same volume of business as done on the Missouri river division of the Soo road, realized less than $1,000 profit, we can draw no other conclusions than that the Soo on its Missouri river division must have sustained an actual loss of from $9,000 to $12,000.

Let us now consider the remaining one-fourth of the lignite traffic conducted by the Soo on divisions other than the Missouri river division, to ascertain whether such loss can be equalled by other portions of the Soo line within this state. From Soo Exhibit 51, page 122 of the Book of Exhibits, we ascertain that the balance of the lignite traffic for that year, exclusive of the Missouri river division, was 65,139 tons, but that the average load per car was 21.51 tons or about six tons per car less than on the Missouri river division, which tonnage yields 3028 car loads of lignite freight carried during the fiscal year by this road elsewhere than on its Missouri river division and for which it received, as shown by this table, $26,676.28, with an average car haul for lignite of 23.13 miles only.

We now observe that a condition exists in the northwestern part of the state, in the lignite fields north of and adjacent to Minot, similar to that above shown in the Bismarck territory, in that the Soo must deliver a considerable portion of its lignite traffic to the Great Northern railroad at Minot, the same as it has divided the Missouri river division traffic with the Northern Pacific at Bismarck, and be compelled to pro-rate or reduce what would otherwise be the statutory haul proportionate to the entire haul on both roads. The exact amount of this is ascertainable from Soo Exhibit 35, pages 2 to 6 inclusive, from which we ascertain the following joint hauls, to-wit: From Wilton to Minot, for 132 miles, 1153 tons, amounting to 18,681 ton miles; from Bitumina to Minot, 20 tons transported 141 miles, for 2820 ton miles; from Smith's Kemmare mine to Minot, 66.6 tons transported 52 miles *from* 3463 ton miles; from Wye to Minot, 47 tons transported 47 miles for 2209 ton miles; from Vanderwalker to Minot, 3244.4 tons transported 13 miles for 42,177 ton miles; from Lloyd's to Minot, 2675.25 tons transported 11 miles for 29,349 ton miles; from Burlington to Minot, 1498 tons

carried 8 miles for 11,982 ton miles; from Davis to Minot, 616 tons, carried 7 miles for 4312 ton miles; or an aggregate of 9231 tons carried an average of 13.3 miles for a total of 115,083 ton miles, amounting to 433 car loads delivered to the Great Northern and hauled by it an average of 63.4 miles, (see G. N. Exhibit 1) and upon which the Soo rate is to be figured on its proportionate share of a 78 mile haul, for which total haul the statute allows a charge of 55 cents per ton, of which amount, exclusive of the division of switching charges, the Soo road would get 12/78ths or less than 8.5 cents per ton, or $1.83 per car, where without the pro-rating feature of the statute it would receive 35 cents per ton of $7.53 per car, or $5.77 per car more, which figured for 433 cars deducts $2,468.10 from what would have been the Soo earnings but for the final paragraph of the statute in question which in practical operation reduces what would otherwise have been its earnings on 433 cars at $7.53 per car, or $3,260.49, to $792.39. Hence one-seventh of the lignite freight carried on the Soo, other than on the Missouri river division, is compelled to be carried practically gratis and at a loss of $2,468, or that much less than a reasonable rate, if the balance of the statute other than the final paragraph be taken as establishing a reasonable rate. So that on both divisions, including the connection with both common carriers this road is compelled to carry 78,915 tons, or the sum of 69,594 tons at Bismarck and 9,321 tons at Minot, delivered to connecting carriers, at a great actual loss out of its total lignite freight of 242,981 tons carried on the Missouri river division and 65,139 tons of lignite carried elsewhere in the state, out of an aggregate haul of 308,120 tons; so that approximately one-fourth of its entire lignite traffic is carried at a loss of the sum of $2,468.10 on the Minot transfer and $10,659.72 on the Bismarck transfer to connecting carriers, or a total loss of $13,127.82 over what it would have received had it carried the same freight the same distance under the statutory rate without being compelled to pro-rate its rate with the connecting carrier. We may here observe that as to both the Great Northern and the Northern Pacific carriers practically no pro-rating is required or possible, they being the recipients of benefits therefrom that would otherwise go to the Soo carrier; so that none of this shortage is equalized as to the Soo road by its receiving similar benefits from any connecting carriers. We observe also from Great Northern Exhibit 1 and according to the Great Northern tables found on page 57 of the Book of Exhibits, it acknowledges the receipt from the Soo of 10,232 tons, carried 66.4 miles on the Great Northern road for an aggregate ton mileage of 678,978 ton miles, which is about 10 per cent in excess of the showing and calculation heretofore made from the Soo tables, No. 27 Soo Exhibit 35, pages 2 to 6. The court will take judicial notice that the only connecting carrier with the Great Northern at Minot is the Soo railroad, as no other railroad enters that city. We observe also that the average lignite haul on the balance of the road within this state, other than the Missouri river division, is but 23.13 miles, while that with the Missouri river division is slightly more than double this, or an average lignite

haul of 47.46 miles. One need not to be a rate expert to realize that usually the longer the haul the greater the net profit, and that it is on the long haul the railroad is enabled to move the freight at the least cost per ton mile. The longer the haul the greater the volume per train load, the less breaking of trains and switching and the more accordingly that the road avoids the excessive cost of branch line service. In reality practically all of the haul of lignite by the Soo in this state is conducted at a cost equivalent to cost of branch line service.

It seems, therefore, that if the statutory rate for the short haul of 50 miles or over is a reasonable rate and one for which the carrier should be entitled to charge for ordinary transportation, and the presumption from the statute is that it is a reasonable rate, the volume of traffic on the entire Soo system within this state is insufficient and carried under too short a haul for it to equalize the loss of $13,128 occasioned by the compulsory pro-rating with connecting carriers in the $70,542 worth of revenue earned in the carriage of lignite, presumably at the rate fixed by statute. Or in other words we must conclude that the Soo loss was considerable because of the connecting carrier feature of this statute, when it has carried for $83,670 what it otherwise would have received $96,978 and for which, had the same carriage been made on the Great Northern or Northern Pacific lines, they would have received approximately such amount therefor. In effect and practical operation we cannot conclude other than that the actual figures show with reasonable deductions therefrom that the final paragraph of Chap. 51 of the Session Laws of 1907, compelling the pro-rating of rates between connecting carriers, discriminates against the Soo, and, if the statute be otherwise taken as prescribing reasonable rates, forces the Soo to carry its entire lignite business at an actual and considerable loss or less than the actual reasonable expense of carriage; while at the same time, under our findings as to the Northern Pacific Railway Company and under the facts found as to the Great Northern Railway Company, both the Northern Pacific and the Great Northern are making a profit on the rates as established and accruing to them because (1) they are the beneficiaries of the contribution enforced from the Soo by the particularly objectionable feature of the statute compelling pro-rating of rates, and, (2) their revenues are not reduced as materially by the pro-rating feature and they have the advantage in pro-rating having the long haul in a proportion of five to one or more over the Soo line. In this respect it is noticeable that both the Northern Pacific and the Great Northern take about an equal proportion from the Soo under this contribution when we consider the volume of their business and earnings, that of the Northern Pacific being, for the twelve month period, $58,953.08, while the Great Northern gross earnings from the lignite traffic for the same period are $17,756.52. The evidence discloses that with the aggregate haul of lignite on the Soo averaging as it does approximately 35 miles only, and considering the large amount of this commodity it is compelled to deliver to connecting carriers to its injury, disproportionate to the injury of the receiving carriers

through compulsory pro-rating, it is, as to nearly half the lignite business, virtually a branch line of the other two railroads in accumulating for them their lignite traffic. The pro-rating feature, therefore, on the facts, favors such connecting carriers to the injury of the Soo line. This takes us to a consideration of the Great Northern case.

Statement of Facts as to the Great Northern Railway Company.

The Great Northern railroad is for accounting purposes divided into accounting divisions, each main line railroad division constituting an accounting division, and each branch line, of the ten or more in this state, also constituting an accounting division, and were so kept for the fiscal year in question, from June 30, 1910, to June 30, 1911, and all of the statistics as to lignite coal carriage and revenues are actual computations from freight way bills. The amount of the tonnage and the net revenue therefor, as well as the origin and destination of all shipments, are facts and not estimates. The same is true of gross loaded and empty freight car mileage. Those expenses capable of allocating have been charged to the particular division and line, whether main or branch, and compilations have been made therefrom as to the total earnings of branch and main lines within this state and total expenses incurred therein or properly assignable thereto on some relative basis, either of mileage, tonnage, revenue or expense basis.

See G. N. Exhibits 1 to 6, pages 57 to 62, Book of Exhibits, and State's G. N. Exhibits 33 to 48 Q4, pages 192 to 232, Book of Exhibits.

We do not deem an exhaustive analysis of these many exhibits, and the testimony offered explanatory thereof, necessary to the development with reasonable certainty of the problem of whether the statutory rate on lignite coal for the year in question was compensatory or confiscatory in its effect on this road. But we will state only sufficient to develop and maintain our conclusions.

For the year in question the total freight revenue assignable to the state of North Dakota from all freight amounted to $6,850,656.68, out of which receipts local to the state and not to be classed as interstate, but intra-state strictly, (which includes lignite revenue of $17,492.41) was $371,222.78; the average car load for all freight amounted to 13.15 revenue tons; while the average car load of lignite contained 17.85 revenue tons. But in both cases the actual average live car load tonnage is reduced by a charge made against it of the percentage of empty tonnage or empty car haul chargeable to the traffic, that of all freight being thus reduced by the proportion of the empty to loaded car mileage, to-wit: 17.6 per cent as to all freight, while the average load of lignite is so charged with the proportion of 25.21 per cent, the relation that actual computation shows empty car mileage bears to the total loaded and empty car mileage used in the lignite traffic. See Exhibit 6, page 62. The actual ton mileage of all freight is approximately but 16 tons per car, while that for lignite coal amounted to 25.83 tons, a difference

of nearly 10 tons per car in favor of this coal. In the method used of determining the cost of hauling this commodity the company has ascertained that out of a total ton mileage of 2,318,345 ton miles for lignite 1,423,182 ton miles were hauled on its main line, while 895,163 ton miles were hauled on the branch lines. As to all freight within the state it has determined, with approximate correctness, that 704,312,900 ton miles were handled on its main line and 50,881,587 ton miles were handled on its branch lines, or a total of 755,194,484 revenue ton miles, at a total expense of $3,008,555.13 as to main line freight, and $647,905.02 expense of branch line freight operation, both being inclusive of taxes. It has divided the total main line operating expenses, slightly in excess of three million dollars, by the total revenue miles moved on the main line, in excess of 704 millions of tons miles, and produced as the average cost per revenue ton mile for the main line 4.27 mills per revenue ton mile. Similarly treating the branch lines by dividing approximately $648,000 operating expense by approximately 51 million ton miles moved on the branch lines, produces an average cost of 12.73 mills, or approximately three times the expense of one ton mile on the branch lines to one ton mile on the main line. It has then applied these figures, to-wit: multiplied the main line lignite tonnage, 1,423,182 tons, by the cost per ton, 4.27 mills, and produced $6,076.99, which it alleges to be the actual cost of carriage of the lignite transported on its main line. Taking in the same way the cost of moving its branch line lignite freight of 895,163 ton miles at 1.273 cents per ton, yields as the branch line cost of lignite haulage $11,415.42. Adding these two amounts produces $17,492.41, which the railroad company alleges to be the approximate cost of transporting 36,678 tons of lignite for an average of 63.2 miles of haul for which it received, as total freight receipts, $17,556.52, receiving an average of .766 mills per ton mile. It has offered testimony tending to show that even this apparent small profit of $264.11 is more than overcome by conditions peculiar to the lignite traffic and impossible of exact ascertainment among which it enumerates a larger empty car mileage in the haulage of lignite than as to average freight, that its main line haul is in reality a main line local train service, that the cars used for hauling this coal are idle in loading, in proportion to the time they are moving, more than in handling other freight commodities, and, lastly, that they are hauled during the winter season during cold weather when the locomotives are unable to haul their full tonnage; and for these reasons urges that this apparent profit, which would be yielded by the average freight in the same volume and under average freight traffic conditions should be changed to an actual loss.

It is apparent that in this manner of attempted ascertainment of the cost of moving this commodity the result is not even approximately the actual cost of moving this lignite coal, but instead is what would be its cost assuming it to be carried under the average conditions and at the cost of the general average of all freight. For instance, the railroad's computation of 4.27 mills as the cost of

carriage of this commodity on the main line probably does not cover its actual cost, for the reason that this small volume of lignite traffic is buried with five hundred times its volume of other traffic and a general average struck, which may favor the state's contentions in this case, inasmuch as it is apparent from an investigation of the Northern Pacific case, based upon actual figures and a classification of the lignite traffic on the main line into main line way and main line through, concerning which no such classification is made or attempted in the Great Northern case, it would seem that its figures are at least sufficiently low if not under the actual cost of carriage of this commodity on the main line. In any event, from the very nature of its ascertainment, it must be at best but an estimate.

And the same is true of the railroad's deductions as to the cost of that portion of the lignite traffic carried on its branch lines. We may here note that out of 895,163 ton miles handled by the branch lines over three-fourths thereof, or 719,000 ton miles, is the product of the Noonan mines transported an average haul of 78.8 miles, or exceeding by one-fourth, or 15.6 miles, its average haul of 63.2 miles of all lignite coal. The output of this mine amounted to 13,835 tons, or approximately 500 car loads. Also there was delivered to this carrier by the Soo at Minot 10,232 tons, or approximately 400 car loads, hauled by it an average of 63.4 miles, or in excess of its average haul of all coal, a portion of which haul, amounting to 131,219 miles, was Great Northern branch line haul. So the freight originating at Noonan and Minot constitutes all but 45,000 ton miles of the total branch ton mileage of 895,000 ton miles; 520 car loads cover balance of tonnage of lignite carried by it on both branch and main line service. Everything considered it would seem that the railroad company's charge of approximately three times its main line haul for this branch line service to lignite freight is excessive, and considerably so, and to an amount that would at least equalize any under-charge for its main line haul. While it is true that in the Northern Pacific case the relation between main line haul and branch line service is approximately three to one, or as 100 is to 299, yet the ratio does not here hold true, because we do not know whether the main line service here rendered was main line through, or main line local, not being classified, it being but the average of the cost of all main line freight local and through. Indeed, a knowledge of the country, of which we may take judicial notice, and the testimony of Mr. Martin, would rather establish this main line service to be main line way freight service. If so, taking the basis determined in the Northern Pacific case, the relation of cost would be as 266 is to 299, which would render these railroad figures as to cost of branch line service to lignite grossly excessive, if it be conceded that the proper charge is made for main line freight at 4.27 mills.

It is apparent in the railroad figures that certain charges have been included and pro-rated against the cost of all freight in this state which apparently are not chargeable against the lignite traffic. Reference is made to traffic and advertising expenses found in plaintiff's G. N. Exhibit 46E, page 216 Book of Exhibits, under

charges against "outside agencies, advertising and traffic associations," aggregating approximately $300,000.00, of which 3 per cent, as appears from the testimony of Mr. Martin, is charged against North Dakota freight receipts. As the lignite receipts amount to a fraction of a per cent only of the total freight receipts we do not compute the small difference to be added to profit from this source. No reason exists, however, why the lignite traffic should be charged with any part of this expense more properly chargeable to the traffic benefited, it being admitted that there is no benefit to the lignite traffic which is non-competitive and must be the traffic of the road upon which it is located. It appears that a similar charge has been erroneously made as to freight handlers, but that the same is too trivial for attempted determination. As to the railroad's claim for right of reduction of earnings as figured by it, because of extra expense of the haul for the reasons above related, we cannot see but what all items mentioned therein have been included and proper charges on deductions therefor made in the expense computations under the classifications thereof in Exhibit 4, conceded by Mr. Martin to be used as a basis in apportioning and allocating the expense. Most of the reasons given are but those we believe to be usually incident to the expense of way or local freight trains and included in the ascertainment of the cost of transporting by way or local freight. They urge here, as it has been urged in the Northern Pacific and Soo cases, that the winter and cold weather increases the cost. This contention may have some basis in fact but the rates must be regarded as fixed upon an average yearly basis, and if the rate is a reasonable one in other than winter seasons it must be taken as reasonable for the winter season also. The railroad must keep its line open and operating in all seasons, and the expense of so doing is not a charge against any particular commodity although possibly it may amount to an overhead charge and to a certain extent be necessary to be considered in fixing a reasonable commodity rate. A share of this overhead expense has been already assigned to this commodity under maintenance of way and structure accounts. (Exhibit 33, page 192, Ec. 8.) From a comparison of conditions, rates and traffic shown with that of the Northern Pacific, and considering that only 2/7ths of the car loads and only one-fourth of the volume or ton mileage is delivered it by the Soo, under which the statutory apportionment reduces its freight receipts approximately 1.25 mills per ton mile for the same distance haul, as is apparent from plaintiff's Exhibit 48A, page 247, Book of Exhibits, and G. N. Exhibit 1, page 57, it is certain that the earnings of this road are not diminished by the pro-rating connecting carrier clause of this law to the same degree as had the Northern Pacific on the Bismarck joint Soo haul, where it hauls over seven millions out of over nine millions of lignite ton miles under a reduced tariff because of the pro-rating with the Soo required by the statute. In tonnage 70,000 tons is carried by the Northern Pacific under said joint haul, to 50,000 tons carried without it. It is this pro-rating feature that reduces the Northern Pacific earnings to nearly its actual cost of transportation. (Compare N. P. Exhibit 18 with G. N. Exhibit 1.)

The Great Northern has a much less empty car mileage in the lignite traffic than the other roads. The empty car haul of the Northern Pacific is 72 per cent of the loaded haul, the Soo is 90 per cent empty haul to loaded haul, while as to the Great Northern, taking the total loaded and empty haul as 100 per cent, the same is, loaded 69.1, empty 30.9, (G. N. Exhibit 6) or the empty car mileage is 43 per cent of the loaded car mileage. This means that the Soo empty car mileage is more than double that of the Great Northern, and that the Northern Pacific percentage of empty car mileage of 72.23 is 167 per cent of the Great Northern empty car mileage of 42.27. On the Northern Pacific the average relation of a car load of lignite to all other freight is as 26.87 tons is to 19.25 tons, (N. P. Exhibit 19) or that a car of lignite contains 140 per cent of the tonnage of the average car load of all freight. On the Missouri river division of the Soo line the average tonnage per car of lignite is 27.32 tons, while the average tonnage per car of all freight is 12.27 tons. Thus a car of lignite carries on the average 222 per cent of the revenue tonnage of all freight on that division. (See Soo Exhibit 50.) This is the ratio for three-fourths of the lignite traffic of the Soo; for the other one-fourth, or that portion carried other than on the Missouri River division, the ratio of lignite load to all freight is as 21.51 is to 14.74, (See Exhibit 51) or a percentage of 139 per cent of lignite to all freight. The Great Northern average lignite load was reduced by the 400 car loads received at Minot from the Soo line, which average 21.51 tons, to the general average of 25.83 tons as the average lignite car load on the Great Northern. See G. N. Exhibit 44, page 204, Book of Exhibits, from which we learn that the car load average for all freight is 16 tons, giving a percentage of 161, the average car hauling that percentage of lignite compared to all freight. The lignite car load, the-, on the respective roads, is to all other freight, as follows: Soo, 207 per cent, Northern Pacific, 140 per cent, Great Northern, 161 per cent. Against this, as tending to equalize lignite with all freight is an empty car percentage of Soo, 90 per cent, Northern Pacific, 72.23 per cent, Great Northern, 43.27 per cent. When we consider that the empty car movement is a movement of 16 tons per car moved wholly at an expense, the empty car being of the same weight on all roads, we find it necessary to equate on a basis of 100 per cent of empty car mileage applied to relative car loads, which would produce the following figures: As to the Great Northern, raising 43.27 per cent to a common basis of 100 per cent empty car mileage, it would realize from a revenue mileage tonnage of 59.7; the Northern Pacific on the same basis would have 37.2 revenue tons, and the Soo, considering the volume of traffic on all divisions, an average live tonnage of 25.87 per car, which equalized on a basis of 100 per cent produces 28.8 tons. We have, then, as the equated ratio of revenue tons to empty car mileage, with all roads equalized on the same empty car mileage, the Great Northern hauling 59.7 tons, while with the same empty car mileage the Northern Pacific hauled 37.2 tons, while with the same empty mileage the Soo has hauled 28.8 tons of lignite. But when the lignite carriage is compared on this basis with the relative loads

of all freight we found each equated average tonnage increased by the following percentages of lignite over all other freight per car load, to-wit: Great Northern 161, Northern Pacific 140, Soo 222; which applied to the equated empty car to all other freight tonnage above gives Great Northern 96.11, Northern Pacific 52.08, and Soo 63.9, as the relative cost to all other freight as to each railroad. But owing to the Northern Pacific carrying a larger average car load of all freight than the Great Northern this ratio is reduced accordingly and proportionately in the ratio of 19.25, average car load on Northern Pacific, to 16, average car load on Great Northern, leaving the proportion 96.11 on Great Northern to 62.66 on Northern Pacific. Therefore, we find when the average load of lignite is equated to all freight, and again equated with empty to loaded car mileage, these roads hauling lignite at the following relative expense per revenue ton carried accruing because of empty car mileage, as follows: The Great Northern gets 96 to the Northern Pacific 62.66 tons of lignite revenue haul for the same relative empty car haul, it costing the Great Northern but two-thirds per revenue ton for empty car mileage in lignite traffic as is expended by the Northern Pacific. This is to a small extent equalized in relative expense per car mile, as between the Great Northern and Northern Pacific, by the fact that the Northern Pacific has an average haul of lignite of 79 miles while the Great Northern average haul is but 63 miles. But all things considered the Great Northern expense for empty car mileage is but approximately two-thirds of that of the Northern Pacific as applied to the lignite traffic per revenue ton. And inasmuch as with two-thirds of the expense for this item the Northern Pacific profit on lignite haul would have been sufficient to render the rate as to it reasonably compensatory, we conclude it must be so taken under these computations as reasonably compensatory to the Great Northern under the conditions under which it handled lignite freight during said fiscal year.

Findings of Fact.

From the foregoing analysis of the evidence we deduce the following ultimate findings of fact, to-wit:

(1) That the Northern Pacific Railway Company during the fiscal year ending June 30, 1911, received from its lignite traffic, conducted wholly within this state, $58,953.07. That the total cost of transporting all lignite freight during said period, and from which the above earnings were received, was $58,125.46, leaving as net earnings to the railroad from said source $847.61. Said coal was carried under the freight rates prescribed by Chapter 51, of the Session Laws of 1907, governing rates to be charged for intrastate haulage of lignite coal. That under the above earnings we find that the rates are, as to the Northern Pacific railroad, slightly remunerative, but non-compensatory under the conditions prevailing along its line in this state as to the lignite traffic.

(2) As to the Great Northern Railway Company the court finds that for the fiscal year ending June 30, 1911, it earned in gross

The Great Northern has a much less empty car mileage in the lignite traffic than the other roads. The empty car haul of the Northern Pacific is 72 per cent of the loaded haul, the Soo is 90 per cent empty haul to loaded haul, while as to the Great Northern, taking the total loaded and empty haul as 100 per cent, the same is, loaded 69.1, empty 30.9, (G. N. Exhibit 6) or the empty car mileage is 43 per cent of the loaded car mileage. This means that the Soo empty car mileage is more than double that of the Great Northern, and that the Northern Pacific percentage of empty car mileage of 72.23 is 167 per cent of the Great Northern empty car mileage of 42.27. On the Northern Pacific the average relation of a car load of lignite to all other freight is as 26.87 tons is to 19.25 tons, (N. P. Exhibit 19) or that a car of lignite contains 140 per cent of the tonnage of the average car load of all freight. On the Missouri river division of the Soo line the average tonnage per car of lignite is 27.32 tons, while the average tonnage per car of all freight is 12.27 tons. Thus a car of lignite carries on the average 222 per cent of the revenue tonnage of all freight on that division. (See Soo Exhibit 50.) This is the ratio for three-fourths of the lignite traffic of the Soo; for the other one-fourth, or that portion carried other than on the Missouri River division, the ratio of lignite load to all freight is as 21.51 is to 14.74, (See Exhibit 51) or a percentage of 139 per cent of lignite to all freight. The Great Northern average lignite load was reduced by the 400 car loads received at Minot from the Soo line, which average 21.51 tons, to the general average of 25.83 tons as the average lignite car load on the Great Northern. See G. N. Exhibit 44, page 204, Book of Exhibits, from which we learn that the car load average for all freight is 16 tons, giving a percentage of 161, the average car hauling that percentage of lignite compared to all freight. The lignite car load, the-, on the respective roads, is to all other freight, as follows: Soo, 207 per cent, Northern Pacific, 140 per cent, Great Northern, 161 per cent. Against this, as tending to equalize lignite with all freight is an empty car percentage of Soo, 90 per cent, Northern Pacific, 72.23 per cent, Great Northern, 43.27 per cent. When we consider that the empty car movement is a movement of 16 tons per car moved wholly at an expense, the empty car being of the same weight on all roads, we find it necessary to equate on a basis of 100 per cent of empty car mileage applied to relative car loads, which would produce the following figures: As to the Great Northern, raising 43.27 per cent to a common basis of 100 per cent empty car mileage, it would realize from a revenue mileage tonnage of 59.7; the Northern Pacific on the same basis would have 37.2 revenue tons, and the Soo, considering the volume of traffic on all divisions, an average live tonnage of 25.87 per car, which equalized on a basis of 100 per cent produces 28.8 tons. We have, then, as the equated ratio of revenue tons to empty car mileage, with all roads equalized on the same empty car mileage, the Great Northern hauling 59.7 tons, while with the same empty car mileage the Northern Pacific hauled 37.2 tons, while with the same empty mileage the Soo has hauled 28.8 tons of lignite. But when the lignite carriage is compared on this basis with the relative loads

of all freight we found each equated average tonnage increased by the following percentages of lignite over all other freight per car load, to-wit: Great Northern 161, Northern Pacific 140, Soo 222; which applied to the equated empty car to all other freight tonnage above gives Great Northern 96.11, Northern Pacific 52.08, and Soo 63.9, as the relative cost to all other freight as to each railroad. But owing to the Northern Pacific carrying a larger average car load of all freight than the Great Northern this ratio is reduced accordingly and proportionately in the ratio of 19.25, average car load on Northern Pacific, to 16, average car load on Great Northern, leaving the proportion 96.11 on Great Northern to 62.66 on Northern Pacific. Therefore, we find when the average load of lignite is equated to all freight, and again equated with empty to loaded car mileage, these roads hauling lignite at the following relative expense per revenue ton carried accruing because of empty car mileage, as follows: The Great Northern gets 96 to the Northern Pacific 62.66 tons of lignite revenue haul for the same relative empty car haul, it costing the Great Northern but two-thirds per revenue ton for empty car mileage in lignite traffic as is expended by the Northern Pacific. This is to a small extent equalized in relative expense per car mile, as between the Great Northern and Northern Pacific, by the fact that the Northern Pacific has an average haul of lignite of 79 miles while the Great Northern average haul is but 63 miles. But all things considered the Great Northern expense for empty car mileage is but approximately two-thirds of that of the Northern Pacific as applied to the lignite traffic per revenue ton. And inasmuch as with two-thirds of the expense for this item the Northern Pacific profit on lignite haul would have been sufficient to render the rate as to it reasonably compensatory, we conclude it must be so taken under these computations as reasonably compensatory to the Great Northern under the conditions under which it handled lignite freight during said fiscal year.

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(2) As to the Great Northern Railway Company the court finds that for the fiscal year ending June 30, 1911, it earned in gross

receipts from the hauling of lignite coal $17,492.41, at an expense to it of not to exceed $15,000; and that as to the Great Northern Railway Company the statutory freight rate for lignite coal prescribed by Chapter 51 of the Session Laws of 1907, governing said carriage, provided a remunerative and reasonably compensatory tariff or freight rate as to said commodity under the conditions prevailing on its line within this state.

(3) As to the Minneapolis, St. Paul & Sault Ste. Marie Railway Company the court finds that during the fiscal year ending June 30, 1911, the gross earnings of that road from the carriage of lignite coal was $83,670, of which $56,993.72 were the freight receipts from this commodity on its Missouri river division, upon which was handled three-fourths of the entire lignite tonnage, and $26,376.28 was received from the haulage of lignite within this state without the Missouri river division for the haul of the remaining one-fourth of the lignite traffic handled by this road. That so large a per cent of the tonnage originating on the Soo railroad is delivered at Bismarck and Minot to connecting carriers, under which its charge is pro-rated as required by the final paragraph of Chapter 51, of the Session Laws of 1907, and under which the Soo proportion of its charge is required to be apportioned to the total haul, is so reduced as to deprive it of $13,128. which it would have received at the statutory rate were it not for the pro-rating feature of the statute, it in effect receiving $83,670. for what it otherwise would have received $96,798. That the court finds that because of the effect of this pro-rating feature of the statute the entire lignite traffic on said railroad for said year was carried and handled at a net loss to it, over all receipts and revenue from said traffic in said commodity, of from $9,000. to $12,000. That because of conditions peculiar to this road and its connections with the Northern Pacific Railway Company at Bismarck and the Great Northern Railway Company at Minot, the pro-rating feature of the rate law in question operates to the injury of the Soo railroad in the transportation of this commodity much more injuriously than it affects its connecting carriers, the Northern Pacific and the Great Northern Railway Companies, as to freight earnings from lignite coal. That prior to 1907 all three of these railroads were operating and carrying lignite coal freight with railway connections the same as at present and as existed during the fiscal year in question. That the reproductive and actual value of the Soo railroad property within this state and engaged in and necessary to its use as a common carrier during said fiscal year has not been established. Nor has any apportionment of the value of its railway property within this state been made as to the portion of value thereof attributable as earning its intrastate earnings or any portion thereof as earning its interstate earnings earned within this state. That the percentage of lignite traffic to all traffic during said year was in revenue as to the Missouri river division 13.6 per cent. and in volume of freight 45 per cent of all other freight on said division. But the court finds that the carriage of lignite coal increases the railroad expenses but sixty per cent of the usual statutory rate for the lignite haul; or in other words, but

60 per cent of the full statutory rate allowed (as the freight tariff on lignite coal) is out-of-pocket costs therefor, or the proportion of the statutory rate made necessary to be expended because of said lignite haul, the remaining portion of the statutory rate and any amount in excess thereof as expenses arise from the apportioning to the lignite traffic of certain fixed charges of railroad expense that would have accrued had no lignite coal been transported. That all receipts from this traffic in excess of the out-of-pocket costs contributes toward payment of fixed expenses of the railroad that would have existed without this lignite freight movement and would have been borne by other freight instead of by lignite to the amount it has so contributed to its payment.

Preliminary Observations.

Although we refer herein to the legislative rate in question as one regulating lignite coal, the rate in fact is a maximum rate upon all intrastate coal shipments, as we held in our former opinion reported in 19 N. D. 45. While it has application almost solely on lignite coal the proof shows it has governed other shipments, the amounts of which, however, are not included in any of the computations made in these findings.

This statutory rate is low. The pro-rating feature further reduces it and is in effect the teeth of the statute and the portion of it that operates to the disadvantage of the Soo carrier. That part reads: "In case any shipment of coal under the provisions of this section must pass over two or more lines of railroad to reach its destination, then an additional charge of $2.50 per car for each transfer may be allowed and collected to cover the cost of switching, and the total amount of freight and switching charges shall be divided among the several railroads concerned upon such basis as to them may seem just; provided that if such railroads cannot agree among themselves upon an equitable division thereof then the board of railroad commissioners shall decide the matter subject to appeal to the courts." The state contends that because the Soo has under agreement with the connecting carriers pro-rated according to the length of haul and not appealed to the board of railroad commissioners for a larger share of the total joint haul freight receipts than they have taken under the arrangement in question, that they should not be heard to complain if their receipts have been considerably reduced through pro-rating. But it is difficult to see what basis other than the one adopted by agreement as a general rate to fix the varying haul could be taken. But assuming that the Soo road could have realized a greater share of the joint haul as the result of an appeal to said board, nevertheless the same case would have been before us, because whatever was thus thrown into the coffers of the Soo road would be taken from the net revenues of the Northern Pacific carrier principally, which would have reduced the receipts of that road from lignite coal to a point below the gross cost chargeable to that coal traffic and would have been insufficient to have raised the Soo return from the traffic to the place now occu-

pied by the Northern Pacific in such respect; so that all the difference in fact would have been that both Soo and Northern Pacific would be then hauling this freight at less than the gross cost, including, of course, out-of-pocket and all fixed charges. We, therefore, in this opinion, treat the rate fixed by the agreement between the carriers as though the same had been fixed by the board of railroad commissioners. The legal consequences in either case would be the same so far as the review in this case is concerned.

We are led to here remark the fact of the legislative rate being a declaration by the sovereign power of this state on a matter of public policy. Importance must be given to the situation as disclosed by the facts of which the court will take judicial notice, and concerning which legislation in the public interests and founded upon public policy has been as here declared. The central and western portions of this state *is* underlaid with lignite coal beds, the min-g of which for fuel is as profitable as a mining enterprise as it is an economic advantage to the consumes who must in this climate use coal six months out of the year. Thus necessity creates an industry and a market. It would seem that the development of both must redound to the benefit of the common carriers, here as ever the connecting link between the producer and the consumer. It is easy to see that the strangulation of the mining and distribution of this coal, or the confining of it by ex*h*orbitant freight rates to as limited an area and therefore as small a market as possible, must temporarily operate to the great advantage of the common carriers and against the public welfare of the people of this state proportionately, inasmuch as those who cannot burn lignite fuel must, on these prairies, otherwise devoid of fuel, buy the eastern coal which has increased in cost from 100 to 200 per cent between the mines in Pennsylvania and the point of its distribution to the consumer, half of which undoubtedly arises from freight charges, as in this instance, as always, the old adage proves true, that "the consumer pays the freight." As against the incentive for avarice of those benefited by freight rates and urging in this review of this commodity rate the right to dividends from the earnings of every commodity carried, the legislature in its wisdom, exercised in the interest of sound public policy, has fixed by statute the maximum rate and the statute must be looked upon as the legislative expression of a public policy intended to encourage industry and commerce and promote the general well-being and public good under the obvious benefits arising therefrom. It may be that to a greater or lesser extent public policy enters into the fixing of every rate statute or rate regulation, but it would seem to be here present to an unusual degree. Of course questions of public policy may enter into every statute in the same sense as here present and may be assumed as the reason for interference with state fixed rates only where the clearest proof makes it necessary to protect private constitutional rights from state infringement. But *bo* harm can come from in passing remarking its presence here.

Rate Law as Involved.

The facts are somewhat involved but the application of the law may be made under the following subdivisions leading to the determination of the issue:

(1) Where the intrastate freight rate to be reviewed is a statutory one upon a single commodity, assuming such a rate may be under certain circumstances confiscatory, when is the burden or proof net and what degree of proof is requisite to establish the rate to be confiscatory?

(2) Whether such a rate can ever be confiscatory where the freight returns under it yield more than the out-of-pocket costs of transportation of the commodity, even though said returns are insufficient to also fully reimburse that proportion of the railroad's fixed or overhead costs properly apportionable to such commodity. In other words, is a non-compensatory rate confiscation in law?

(3) Assuming that such a commodity rate under certain circumstances may be held confiscatory in law, is the rate attacked shown to be confiscatory? In this question is involved both the method and the measure of proof of confiscation.

(4) The rules by which the operation of the statute is measured as to whether the same is confiscatory, in turn involves; (*a*) valuation of railroad property used in producing the revenue received under the rate; (*b*) proof that such returns under the rate, predicated upon the valuation of property used to earn the same, are insufficient to amount to a fair rate of interest upon such valuation; and, (*c*) finally, though the rate may yield an inadequate percentage of return on the value of the property utilized in earning the same, to prove the rate confiscatory it must further appear that the effect of such loss on the commodity rate is to render the total intrastate net earnings from all intrastate freight inadequate to yield a reasonable interest rate on the fair value of all its property employed in producing such total earnings.

(1.) Burden and Degree of Proof.

We first determine the rules of law governing the attitude of the court toward the rate attacked; where the burden of proof rests; and the degree of proof necessary before a rate can be established as unconstitutional because confiscatory. As to the governing principles the law is clear and we can find it nowhere better stated than in the very recent decision of Louisville & N. Ry. Co. vs. Railroad Commission of Alabama, reported in 208 Fed. 35, in the following language: "In deciding the question whether or not an order made by authority of the state, fixing rates, is confiscatory, the inferior courts as to the measure of proof are guided by well-settled rules binding upon them because announced by the Supreme Court. One of those rules is that the rate fixed by legislative authority is prima facie fair and just. * * * The presumption must be indulged at the outset that it is reasonable and not violative of constitutional rights. The burden of proof is placed on the plaintiff railrooad to

show that the case is one calling for judicial interference with the authorized action of the local authorities. Louisiana Ry. Comm. v. Cumberland Tel. Co., 212 U. S., 414, 29 Sup. Ct. 357, 53 L. Ed. 577; Minneapolis & St. Louis Ry. Co. vs. Minnesota, 186 U. S. 257-264, 22 Sup. Ct. 900, 46 L. Ed. 1151. Another rule for our guidance is that the burden of proof is not only placed on the plaintiff but the plaintiff is required to do more than offer a mere preponderance of the evidence. The judiciary is not permitted to interfere with the rates established by legislative authority unless it is made to appear clearly and beyound reasonable doubt that they are unreasonable and that their enforcement would be equivalent to the taking of property for public use without just compensation. If the evidence offered leaves the court in doubt, if it is not clear, satisfactory and convincing, the rate fixed by state authority should not be enjoined. San Diego Land Co. v. National City, 174 U. S. 739-754, 19 Sup. Ct. 804, 43 L. Ed. 1154; St. Louis & S. F. Ry. Co. v. Gill, 156 U. S. 649-656-657, 15 Sup. Ct. 484, 39 L. Ed. 567. So stringent are these rules against interference with the action of the local authorities in fixing rates that it has been said that the court should not enjoin a rate unless it can hold 'that it was impossible for a fair-minded board to come to the result which was reached' (in establishing the rate.) Knoxville v. Water Co., 212 U. S. 1-17, 29 Sup. Ct. 148-153, 53 L. Ed. 371. These rules are not merely cautionary phrases, they are intended to mark the limits of judicial interference." Nothing can be added to this plain but comprehensive statement.

(2.) Is a Non-compensatory Rate Confiscation?

The legislative rate attacked has returned to the railroad more than the outlay for transportation expenses or out-of-pocket costs occasioned in the freightage of the commodity by some 20 or 30 per cent, which excess, of course, has contributed toward the payment of the railroad's fixed or overhead charges which would have been the same whether or not such commodity had been carried. By actual transportation or out-of-pocket costs we refer, then, to those items only of railroad expense caused solely in the carriage of lignite freight and which costs consume approximately 60 per cent of the revenue so produced under the legislative rate: and distinguish and differentiate such expense from that large additional proportion of railroad expense which must necessarily accrue regardless of the carriage of any particular freight commodity and toward the payment of which fixed and practically invariable expense 20 to 30 per cent of the gross earnings from the carriage of this coal have contributed, over and above and after the reimbursement to the railroad of its transportation or out-of-pocket costs. Under such a situation can the courts conclude as a matter of law that the legislative rate is confiscatory and violative of Federal constitutional rights so guaranteed the carrier? We answer in the negative. To hold otherwise would be analogous in principle to declaring that a carrier has a vested right to earn a net profit over every mile tion or division of its road, or upon every commodity or article of

commerce carried by it. See the cases cited in our former opinion, particularly St. Louis Ry. Co. v. Gill, 156 U. S. 649, 15 Sup. Ct. 484, 39 L. Ed. 567; Minneapolis & St. Louis Ry. Co. v. Minnesota, 186 U. S. 256, 22 Sup. Ct. 900, 46 L. Ed. 1151; State ex Rel. *v. Atlanta* Coast Line Co. v. No. Car. Comm. 206 U. S. 1, 51 L. Ed. 933, a case closely parallel to the one before us. There the duly constituted state authority ordered the doing of a particular act, the running of a daily train by the railroad at a loss. It was held not to invoke "the question of the profitableness of the operation of the railroad as an entirety." Likewise the carriage under compulsion of legislative enactment of a single commodity among the many constituting the wholly intrastate freight traffic, at least unless of great proportionate volume as to the total intrastate traffic, should not be held to involve the "profitableness of the operation f the railroad as an entirety." If a railroad has no constitutional right that a portion of its road, less than its total system within the state, shall yield revenue over all disbursements in operation, interest on bonded indebtedness and taxes, as against state regulation of domestic freight rates of such state, still less in principle would it have the right, as against a legislative rate, to insist upon the return to it of a gross revenue or a return upon affreightment of one commodity more than sufficient to pay for the transportation of such commodity and in addition a fair contribution toward general overhead expense that might be in reason apportioned to its carriage. Granting that the general rule may be that a railroad must be conceded the right to exact for its service a rate that will yield returns over gross expenses, it does not follow that each commodity rate must be so fixed without regard to the service rendered or the freight classification as to risk, desirability or ease of handling. In determining the reasonableness of this commodity rate our finding of fact that it is much in excess of actual transportation charges, that is, out-of-pocket costs, determines as a matter of law that the rate is not unreasonable or a deprivation of any rights guaranteed these defendants under the 14th amendment to the Federal constitution.

(3 & 4.) Method and Measure of Proof of Confiscation.

But coming now to the third and fourth subdivisions of this discussion, and assuming that proof establishing that a rate on a single commodity as fixed by legislative enactment, because of volume of the traffic in that commodity and under proper proof, may amount to confiscation of the property of the carrier, there is nothing in the record in this case from which such a conclusion can be reached. Assume that when we find the fact to be that this commodity has not paid its full proportion of the overhead and fixed railroad charges assignable to it, even though it does bring a return greater than the actual out-of-pocket costs of carriage, that we must thereby conclude in law that the commodity is carried at a loss to the carrier so that such fact may be a basis upon which confiscation can be predicated, still this alone is far from establishing that in law the statutory rate is shown to be confiscatory and void as an infringement of constitutional property rights. To stop here

would be to assume a result that must not only be proven by evidence but established so clearly and convincingly as to leave no reasonable or substantial doubt as to the effect of the rate upon the whole earnings of which it is but a part when compared with and measured by the value of the property used in producing the earnings accruing from the commodity rate. In other words, until the railroad has established by proof the existence of a general deficiency in intrastate earnings, or that the same will not pay a reasonable return upon the value of the railroad property used in producing such total intrastate return, it has not established its case, although it has shown a loss to ensue in the carriage of a certain commodity at a maximum statutory rate. Or as is well said in the special concurring opinion of Judge Grubb in Louisville & N. Ry. Co. v. Railroad Commission of Alabama, 208 Fed. 35, at page 52, concerning the effect of an intrastate reduction in passenger rates from 3 to 2½ cents: "The plaintiff must also reasonably satisfy the court of the two propositions, that any deficiency in intrastate earnings below the point of remuneration that may exist is substantially contributed to by the enforcement of the reduced passenger rate. That rate cannot be said to be so unreasonably low to be confiscatory unless its operation is attended with that result. Even though the intrastate earnings have reached the unremunerative point it does not follow that every rate reduction thereafter is an act of confiscation. It is conceivable that the reduction of a specific rate may be unconsequential in its effect on the entire intrastate business, or at least of not sufficient consequence to constitute confiscation; or that by increasing the amount of business done at the lower rate it may be attended with no loss of earnings or even with an increase. In such a case the fact that the entire intrastate earnings of a carrier did not either before or after the reduction yield a fair return would not condemn the reduced rate." And in the main opinion, on page 40, we find the following: "The great volume of evidence submitted relates to the issue necessarily involved in the main case as to whether or not the railroad was earning under the general schedule of rates then in question a fair return on the value of its property devoted to intrastate public service. The solution of that question in favor of the plaintiff would not be conclusive against the defendants in the instant case, because it is limited to intrastate passenger rates. It might be true that the plaintiff would fail to secure an adequate return on all of its property devoted to the public intrastate service and yet the failure might not be due to the passenger rate. If the return were insufficient on the whole property the passenger rate would not be made invalid unless it materially contributed to cause the insufficiency. It follows that to attack the order successfully the insufficiency of the rate must be shown and also that the order as to passenger rates is at fault in causing the insufficiency. If the insufficiency of the rate were proved according to rules hereinafter stated, if it appears that such insufficiency is caused by the policy of the plaintiff in operation and investment, and not by the rates attacked, the rule of adequate return would be inapplicable. The plaintiff cannot

be permitted to cause the failure of return by its own acts and then complain of it. * * * Under the circumstances we would be reluctant to hold that the order fixing a passenger rate only is confiscatory because the plaintiff fails, if it does fail, to receive an adequate return on all of its property devoted to intrastate public service." Citing Minneapolis & St. Louis Ry. Co. v. Minnesota, 186 U. S. 257, 22 Sup. Ct. 900, 46 L. Ed. 451; Reagan v. Farmers' Loan & Trust Co., 154 U. S. 362-412, 14 Sup. Ct. 1047, 38 L. Ed. 1014; Covington Turnpike Co. v. Sandford, 164 U. S. 578-596, 17 Sup. Ct. 198, 41 L. Ed. 560; San Diego Co. v. Jasper, 189 U. S. 439-447, 23 Sup. Ct. 571, 47 L. Ed. 892; and 20 Interstate Commerce Commission Reps., 342. And the proposition is but conversely stated in L. C. C. v. Union Pac. Ry. Co. et al., 222 U. S. 541, 56 L. Ed. 308, at page 312, where the court in discussing a rate fixed by the Interstate Commerce Commission governing the haulage of lumber from the coast to St. Paul and Omaha, has the following to say concerning this question as to one commodity: "Where the rates as a whole are under consideration there is a possibility of deciding with more or less certainty whether the total earnings afford a reasonable return; but whether the carrier earned dividends or not sheds little light on the question of whether or not the rate on a particular article is reasonable. For if the carrier's total income enables it to declare a dividend that would not justify an order requiring it to haul one class of goods for nothing or for less than a reasonable rate. On the other hand if the carrier earned no dividend it would not have warranted an order fixing an unreasonably high rate on such article." In Atlantic Coast Line Ry. Co. v. No. Car. Comm., 206 U. S. 1, concerning the effect of the state commission's order that a daily train be operated, the proof showing it to be at a loss to the company and in such respect analogous to the assumed facts under discussion, it is said, on page 25, or at 51 L. Ed. page 944: "But even if the rule applicable to an entire rate scheme were to be here applied as the findings made below as to the net earnings constrain us to conclude that adequate remuneration would result from the general operation of the rates in force, even allowing for any loss occasioned by the running of the extra train in question, it follows that the order would not be unreasonable even if tested by the doctrine announced in Smith v. Ames, (169 U. S. 540) and kindred cases." Besides declaring the law applicable to the determination of the question of confiscation as to a single act, or by analogy a single commodity rate, as necessitating proof of other earnings than those resulting from the rate in order to determine anything at all, the court here construes Smith v. Ames, around which the defendants have builded their briefs in this case. It is therefore doubly applicable. We still adhere to the former decision of this court reported in 19 N. D. 45, 120 N. W. 869, in which the rule is announced that "the proper test as to whether the rates thus fixed are reasonable or unreasonable is not whether the rate fixed on the particular commodity is sufficiently high to enable the carrier to earn a fair compensation after allowing for the legitimate cost to the carrier of transporting the same,

but whether under such rates it will be enabled from its total freight receipts on all its intrastate traffic to earn a sum above operating expenses, reasonably necessary for such traffic, sufficient to yield a fair and reasonable profit upon its investment." The rule seems to be supported by the authorities there cited, among which are I. C. C. v. Louisville & N. Ry. Co., (C. C.) 188 Fed. 613; St. Louis Ry. Co. v. Gill, 156 U. S. 649, 15 Sup. Ct. 484, 39 L. Ed. 567, affirming the same case in 54 Ark. 101, 15 S. W. 18, 11 L. R. A. 452; State v. Minneapolis & St. Louis Ry. Co., 80 Minn. 191, 83 N. W. 60; 89 A. S. R. 514; Minneapolis & St. Louis Ry. Co. v. Minnesota, 186 U. S. 357, 22 Sup. Ct. 900, 46 L. Ed. 1151; State ex Rel. v. Atlantic Coast Line Ry. Co., 48 Fla. 146, 37 So. 657, affirmed in 203 U. S. 255-261, 27 Sup. Ct. 108, 51 L. Ed. 174.

Conceding, however, that the findings concerning the Soo may serve as the basis of proof of confiscation, if it be further established that the company is not earning a reasonable return upon all of its intrastate business when measured by the amount of its investment, that is, the value of its property within this state necessary to the earning of the revenue received, the company must also establish, to sustain its contention that the rate is confiscatory; (*a*) the amount of its total net earnings or net loss on its intrastate business; and, (*b*) if it has accumulated net earnings on such intrastate business it follows that before it can be determined whether the same constitutes a fair income on its investment it must establish the value of its property used to produce such earnings, and also if it has suffered a net loss on its intrastate traffic or has made an insufficient profit, measured as above stated, it must further clearly appear that the loss from the carriage of the commodity in question materially increased the loss or insufficient return beyond what it otherwise would have been. All these must appear from the proof, established directly or by reasonable inference, before the statutory rate presumed to be reasonable and just and therefore valid can be held invalid as an unconstitutional deprivation of property and a denial of the equal protection of the law. Besides being the logical requirements to reach the ultimate and it seems that these rules are now fairly definitely established. And as to the accuracy of the determination of the value of the property, as well as its apportionment applied to profits to determine earnings, strict legal proof of the facts is the requirement announced by the Minnesota, Missouri and Oregon Rate Cases, 230 U. S. 352 to 560, in the decision of which estimates of experts were not accepted as sufficient proofs of facts, but the railroad was held to the requirement that it prove its case by clear and satisfactory evidence or suffer dismissal of its bill of complaint when it seeks to establish the invalidity of legislative rates. See also Wood v. Vandalia Ry. Co., 231 U. S. 1, in which the method of proof known as the revenue basis, but little more than an arbitrary apportionment, is expressly held insufficient in the following language: "It is plain, however, that it does not follow from the mere fact that the total operating expenses of a railroad or of a division of a railroad bear a given relation to the entire receipts of that road or division that the cost of transportation

in the case of a particular class of traffic bears the same relation to the revenue derived from that class. The ratio in the first case is found by bringing together a great variety of operations involving various rates and different outlays for different sorts of traffic. It is predicated on the whole volume of business considered as such and may be far from true of some of it considered separately. It does not purport to be an expression of the relative cost of any specified part, but simply of that of the entire traffic to which it applies." And this is equally true as to the method of proof of the cost of carriage of lignite coal offered by the Great Northern system as to cost of carriage of coal on its main and branch lines. The Soo line on the method of proof claims that the revenue method is supported by the following authorities: In re; Arkansas Rate Cases, 163 Fed. 140; M. K. & F. Ry. Co. v. Love, 177 Fed. 493; Love v. Atkinson T. & S. F. Ry. Co., 188 Fed. 321, at pages 328 and 30; and also Shepard v. Railroad Co. et al., 184 Fed. 765. But the foregoing from Wood v. Vandalia Ry. Co., and the express disapproval of this method in the decision of the Minnesota Rate Cases, we take as the last word on the subject and as the equivalent of establishing a failure of proof in this case as to the Soo and the Great Northern in which the testimony in this record establishes the same method of proof here used was offered in the Minnesota Rate Cases.

As the fixing of the valuation of railroad property is a mixed question of law and fact it can well be considered here. Neither the Northern Pacific nor the Great Northern have offered any proof either as to total intrastate earnings or as to the value of the railroad property employed in producing such earnings, both carriers assuming that it was unnecessary to make such proof, and that should the court find that the gross revenue from this commodity failed to pay gross expenses apportionable for the carriage of this coal it must as a matter of law determine the legislative rate to be confiscatory. We quote the following from the oral argument of Mr. Donnelly, taken at the trial: "What we desire to present clearly to this court, regarding the revenue derived from the handlinf of this particular commodity, is that the operating expenses absorbs practically 98 per cent of the gross; that is, taking it on its most favorable basis. This might be taken in regard to any railroad in the United States to indicate confiscatory rates, if confiscation means what we think it means, and that brings up the real legal question in the case. If this court shall persevere in the doctrine laid down in the previous case the contentions of the carriers will be rejected because that doctrine is that it is within the right of the state to compel the Northern Pacific Railway Company to move this or that commodity from one point to another even though it be shown that the company earns no revenue thereby. Such is the contention which as we think is the very large question in issue here. Taken from a viewpoint most favorable to the contention of the state it will be apparent that our operating expenses and taxes exhaust the revenue derived from this coal. If that is the doctrine adherred to it will be announced for the first time in this case, as it

has been announced in the previous decision. * * * We have approached the case in perfect fairness and attempted to show clearly and fairly just what it costs us to haul this coal. The actual amount involved, of course, while it is large to me or any of us, is not so in connection with the receipts of the Northern Pacific. Of course, the Northern Pacific could be compelled to move this lignite coal for nothing without appreciably affecting its revenues; and we have not made a showing, and *in* concede we cannot, of confiscation independently of that. We cannot say the total sum we have earned is less as a result of this rate you have told us to put into effect. But we do say we have a right to demand that each commodity moved must contribute its proportion to the earnings over and above the expense of operation." This is the summary of the Northern Pacific case made on oral argument by its able counsel. We might perhaps have taken counsel at his word and refused to make findings as to the cost of carriage of this commodity under the maximum statutory rate, for the reason that, conceding the facts to be as so contended, the rate is not shown to be confiscatory, the value of the property employed to produce earnings, if any were made, not being shown, and on the further grounds that the court cannot assume that the carriage of this commodity materially affected dividends or earnings of the carrier. And under the concession of counsel that the carriage of this commodity could be compelled "for nothing without appreciably affecting its revenues," and again, "we cannot say the total sum we have earned is less because of this rate you have told us to put in effect," we could conclude as a matter of law that the rate cannot be found confiscatory as to the Northern Pacific. In order, however, that the Federal Supreme Court, assuming that this case will reach that court of last resort, may be enabled to avoid some of the labor of exploring this entire record and that the defendants may feel that consideration has been given in this court to these cases commensurate with their importance, and also that any benefits of proof made by one carrier may be considered in its bearing upon the proof as to others, in accordance with the stipulation of counsel virtually consolidating the cases, we have made full findings of fact as to the Northern Pacific proof, although that road in our opinion has utterly failed on its proof. And as the Great Northern has likewise stood upon the proposition that it was unnecessary to make proof of value of its properties, or apportion such value, or make proof of intrastate earnings, what is said as to the Northern Pacific is equally applicable to it.

"What the company is entitled to ask is a fair return upon the valuation of that which it employs for the public convenience. On the other hand what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth;" Smith v. Ames, 169 U. S. 546, quoted with approval in the Minnesota Rate Cases, 230 U. S. 352, at page 435, where the foregoing is supplemented by the following rule where intrastate rates are under examination: "Where the business of the carrier is both intrastate and interstate

the question whether a scheme of maximum rates fixed by the state for intrastate transportation affords a fair return must be determined by considering separately the value of the property employed in the intrastate business and the compensation allowed in that business under the rates prescribed," as was also held in Smith v. Ames, supra. And again the court there says: "The necessity of this segregation of the domestic business in determining values and results of operation was recognized by both parties." And again in the same case, at 230 U. S. 426, the rule is declared to be that "the reasonableness of intrastate rates was to be determined by considering the intrastate business separately." See also Ames v. Union Pacific Ry. Co., 64 Fed. 165, and opinion by Brewer, J. This is again followed in one of the Oregon Rate Cases, Southern Pacific Co. v. Campbell, 230 U. S. 537, as appears from pages 549-50, where it is said: "In addition to this omission the bill was destitute of any allegation showing the expenses incurred in the conduct of the intrastate business as distinguished from the interstate business, or the share of the value of the property which was assignable to the former. In short, the allegations of the bill were wholly insufficient to show that the complainants would be deprived of just compensation in their business of intrastate transportation by virtue of the operation of the order." Opportunity was given in the court below to amend and cure such defects in the complaint, and on failure to do so a demurrer thereto was sustained, concerning which the Supreme Court says: "But the complainants informed the courts that they did not desire to avail themselves of this opportunity and accordingly the bill was dismissed. We think it cannot be said that any error was committed in this disposing of the contention as to confiscation." This seems to be the last word of the United States Supreme Court upon this subject, to the effect that without proof of the fair value of the property devoted to intrastate traffic there is an utter and absolute failure of proof. This alone would seem decisive of the Northern Pacific and Great Northern cases.

The Soo, however, have offered evidence touching some of these issues. See Soo Exhibit 36, and testimony of witness Kolk, explanatory thereof, found in the direct examination at page 146, and the further examination of the witness thereon under succeeding pages to page 162 of the record. Concerning Exhibit 36 the witness testifies that it "shows what would be the cost of reproducing the Soo line and properties in this state at this time" in his judgmen, and that such cost would amount to $30,047,798. But on cross examination the witness shows that the sources of his knowledge are mere tabulations containing items for right-of-way, station grounds and clearing, grubbing and grading, organization, interest during construction and contingencies, engineering, superintendence and legal expenses, charges for which mentioned items alone amount to $15,000,000, or one-half of the claimed total value of $30,000,000. All these items enumerated are based upon arbitraries or estimates or upon the railroad value rather than the actual value. This is made plain on page 152 of the record where its wit-

ness, testifying as to the value of approximately 16,000 acres of right-of-way, fixed at $100. per acre and amounting to over 1½ million dollars, says:

"Q. Then your estimate of $100 per acre is on a basis of an estimated railroad value of four times the normal value, is that right? A. Yes, sir. It is based on this: that in acquiring land for a railroad company you take a strip of land which does not necessarily follow the government subdivisions; it cuts land diagonally. Frequently it runs into buildings. All these enter into the value that the railroad company has to pay as damages to the adjoining property. That is, the acre value of the right of way is above the normal value for the reason that it damages the adjacent property. It is impossible in other words to procure a railroad right of way at the normal value of land."

The actual, reasonable, market value of railroad property is the basis upon which to determine the percentage of returns yielded by net revenues. Proof of market value is not made by proof of railroad value. The Minnesota and other rate cases, in 230 U. S. settle this beyond question. See pages 454-5-6 of that volume, summed up in the following statements: "Assuming that the company is entitled to a reasonable share in the general prosperity of the communities which it serves, and thus to attribute to its property and increase in value, still the increase so allowed apart from any improvements it may make cannot properly extend beyound the fair average of the normal market value of land in the vicinity having a similar character. Otherwise we enter the realm of mere conjecture." And again: "and where the inquiry is as to the fair value of the property, in order to determine the reasonableness of the return allowed by the rate-making power, it is not admissible to attribute to the property owned by the carriers a speculative increment of value over the amount invested in it and beyound the value of similar property owned by others solely by reason of the fact that it is used in the public service. That would be to destroy the essential conditions of the public use and to make the public use destructive of the public right. * * * We, therefore, hold that it was error to base the estimates of value of the right-of-way, yards and terminals, upon the so-called railroad value of the property." Also the following excerpt applies particularly to plaintiff's offered proof of valuation of its North Dakota properties, shown by Soo Exhibit 36: "The allowance made below for a conjectual cost of acquisition and consequential damages must be disapproved. And in this view we also think it was error to add to the amount taken as the present value of the lands the further sums calculated on that value which were embraced in the items of 'engineering, superintendence, legal expenses, contingencies and interest during construction.'" Exhibit 36 contains about four millions in items for engineering, superintendence, legal expenses, contingencies and interest during construction, all based upon percentages.

But assume that this carrier defendant has some proof in the record from which the value of its North Dakota properties devoted to railroad business may be ascertained. There is no apportion-

ment of that value between interstate and intrastate business, which is equally essential in order that the confiscatory nature of the rate may be determined. We may assume that the company has made proof of the value of its road to be $30,000,000. Any attempted apportionment on gross earnings is insufficient under the Minnesota Rate Cases, 230 U. S. 458-461. A gross earnings division coupled with a comparison of the cost of intrastate and interstate traffic, as was done in the Missouri Rate Cases, 230 U. S. 474, and pages 504 to 507, does not meet the requirements. "It is evident that in an apportionment of expenses, either upon the revenue method or upon the ton mile and passenger mile method, relations may be assumed which do not in fact exist," and an apportionment so sought to be established is repudiated. Whether in fact any reasonably satisfactory and certain proof of such apportionment of values to traffic can be made seems doubtful, but the rule in this particular is to be declared by the court of last resort. It would seem, however, that before the Federal Supreme Court "have pricked out by the gradual approach and contact of decisions on the opposing sides" the rule to be observed in this apportionment, (quoting from Noble State Bank v. Haskell, 219 U. S. 112, the Oklahoma guaranty of bank deposits case, wherein the above language is used concerning the definition of police power) that court of last resort will have a hard task in declaring a definite rule as to apportionment that will be harmonious with the usual rules of evidence and square with the usual contingencies. In those exceptions where relief has been granted the carrier, as in the Minnesota Rate Cases, where relief was granted to the Minneapolis & St. Louis Ry. Co., and in the Missouri Rate Cases, where granted to the three roads as exceptions, (see 230 U. S. 507-8) relief was granted upon general conclusions drawn without stating specifically the facts that constituted the cases of these carriers as exceptional, and so afford no guidance as to the manner of arriving at an apportionment of value or the conclusions there reached. We do not say this in criticism but rather to illustrate that these defendants and also inferior courts, in passing upon this question, must remain in the dark as to the proper method of apportionment until further decisions of the Federal Supreme Court furnish light on the subject.

In attempting to establish its contention that a legislative rate not yielding a sufficient revenue to return a fair profit must be held in law confiscatory irrespective of whether the effect of the rate and the loss there under is to reduce the railroad earnings of a similar class to below the point of being remunerative in order to be confiscatory, counsel have urged the following in oral argument. "It is perfectly obvious that if the state can say to the Northern Pacific 'you must move coal at a loss,' it can do the same as to wheat. The attorney general says a point would be reached when it could not do so; and that such point is reached when the railroads can come in and show that the rates are so low they are not making a reasonable profit on their entire business. But we must consider this element: When North Dakota is saying this as to lignite coal Montana may

be saying it as to her ore, and Idaho and Washington as to their lumber. Each state can go on until that point is reached, and then what rate is confiscatory? Is it the North Dakota coal rate or the Washington lumber rate? It is but necessary to carry this argument to its logical end in order to see the difficulties which would arise from such a construction." The argument is plausible and would seem to have force, but it has been urged before in the court of last resort in a similar case, or at least where the effect would have been the same. We refer to Atlantic Coast Line Ry. Co. v. No. Car. Comm., 206, U. S. 1, 51 L. Ed. 933, at page 944, wherein the same principle was contended as shown from the following quotations: "It is insisted that although the case be not controlled by the doctrine of Smith v. Ames, nevertheless the arbitrary and unreasonable character of the order results from the fact that to execute it would require the operation of a train at a loss, even if the result of the loss so occasioned would not have the effect of reducing the aggregate net earnings below a reasonable profit. The power to fix rates it is urged, in the nature of things, is restricted to providing for a reasonable and just rate and not to compelling the performance of a service for such a rate as would mean the sustaining of an actual loss in doing a particular service. To hold to the contrary, it is argued, would be to admit that a regulation might extend to directing the rendering of a service gratuitously or the performance of first one service and then another and still another at a loss, which could be continued in favor of selected interests until the point was reached where by compliance with the last of such multiplied orders the sum total of the revenues of a railroad would be reduced below the point of producing a reasonable and adequate return. But these extreme suggestions have no relation to the case in hand." The court indicates that the point might be reached when such rates would fall under the attack here made, and so be subject to review in the Federal Courts, but as there said, such is not the issue upon which our judgment is invoked. But it would seem that under the facts assumed by counsel the carrier may be without a remedy in the Federal Courts under the Minnesota and other recent rate case holdings. But, as there intimated, the subject is one within the power of Congress to regulate as indirectly affecting commerce between the several states, assuming that the state regulations rendered the intrastate business of the various states unprofitable to the carrier, or otherwise created state favored commodity classes amounting to discrimination against intrastate traffic. However, "sufficient unto the day is the evil thereof," and the hypothetical obstacles interposed by counsel in argument will doubtless be surmounted when necessary of determination and presented to the proper tribunal to declare the solution.

Should this court hold that the Soo carrier has offered competent evidence to establish the value of its property, and under the data before us attempt to apportion such value between intrastate and interstate use, to determine rate of earnings made in carriage of intrastate freight, and thereunder should grant relief to this carrier on the theory that the rate was confiscatory and unconstitutional as

applied to it, on appeal the result would undoubtedly be the same as in the Arkansas Rate Cases, considered elaborately by the Circuit Court as reported in 187 Fed. 290, and reversed and dismissed on appeal in 230 U. S. 553. A comparison of the tables contained in Exhibit A., 187 Fed. 349-354, shows a much similar method pursued by that court in arriving at its determination that the rate was confiscatory to that here presented by these carriers, and which methods were on appeal held insufficient to establish a case of confiscatory rates.

We conclude there is a failure of proof as to all these carriers. The rate in operation does not affect alike any two of the three carriers. It is as to the Great Northern, Compensatory, and a reasonable rate; as to the Northern Pacific sufficient to more than reimburse for all expenses chargeable against the lignite traffic but yielding so little revenue over such total expense as not to be remunerative in fact; and as to the Soo line, because of the effect of the pro-rating requirement of the statute the lignite traffic does not yield to it a return sufficient to pay all costs attributable to lignite carriage, but does return to it an amount some 20 or 30 per cent more than sufficien- to pay its out-of-pocket costs of transportation of said commodity. The Great Northern could not on the facts establish the rate to be confiscatory; as to its effect upon the Soo carrier no sufficient proof has been made of the value of its railroad property within this state; and as to the Northern Pacific no attempt has been made to make such necessary proof. Though the Soo has offered evidence upon the value of its North Dakota properties devoted to the railroad use, it has not established by competent evidence, measured by the rule in the rate cases reported in 230 U. S. 352-560, the value of its railroad property reasonably apportionable as employed in earning its intrastate revenues from which as classified and apportioned deductions are possible as to whether the particular rate attacked is confiscatory.

Though on the trial and in this opinion all three cases have been treated as consolidated by stipulation, in awarding relief each case will be considered separately. Let the writs heretofore issued from this court, entitled in each case, directed to each defendant as prayed for, restraining each several defendant from putting in force or restoring freight tariffs of the class covered by the statutory rate which shall exceed the maximum rate prescribed in Chap. 51, of the Session Laws of 1907; and also enjoining collection of a greater freight return for haulage of lignite coal than is provided in said statutory rate as the maximum to be collected therefor be each and all continued in force. The state will recover judgment, to be entered by the clerk of this court, for its taxable costs and disbursements pro-rated between the defendant companies, one-third of the total to be severally entered as a judgment against each company defendant. Judgment will be entered accordingly.

E. B. GOSS.
EDWARD T. BURKE.
C. J. FISK.
A. A. BRUCE.
B. F. SPALDING.

SPALDING, *C. J.* (concurring): The foregoing opinion follows as closely as possible the recent decisions of the Supreme Court of the United States in cases relating to railroad rates. The decisions of that court must of course control those of this body in actions of this nature when the questions or principles are the same.

While the Supreme Court has *laid* down no very tangible rules as a method of proving valuation, operating expenses, etc., it seems by a process of elimination to have disapproved the methods of proof adopted by the railroads in the case at bar.

About the nearest approach I can see to its stating a rule for va*l*uation is found in the recent Minnesota Rate Cases wherein it is said that, "for purposes of establishing rates, the valuation apart from any improvements it may make, cannot properly extend beyond the fair average of the normal market value of land in the vicinity having a similar character," and other remarks indicating, as said by Judge Goss, in expressing the views of this court, that, "The actual reasonable market value of railroad property is the basis upon which to determine the percentage of returns yielded by net revenues." It would seem to me that the reasonable market value of a trunk line of railroad is about as indefinite a basis from a practical standpoint as can be imagined. The history of the last twenty-five years would appear to indicate that railway properties have no value, when placed upon the market, in any degree commensurate, either with their fair and honest cost, or their earning capacity, or the value of their stocks and bonds on the market.

If the cost of replacement of the road and equipment is a proper criterion, how can it be replaced, without providing for superintendence, surveying, engineering and the other preliminary expenses, which are as essential and necessary elements in the construction of a road as are the materials for bridges or station buildings?

It is possible that the great court which passed upon these questions only intended its disapproval, of proof of the nature offered by the roads, to go to the extent of rejecting their method of reaching the cost of these elements in replacing transportation lines, because seemingly based upon an arbitrary percentage and without an attempt to show what the actual cost would approximate. The same may be said with reference to the damages which necessarily must be paid to property owners whose property is taken or injured. The observation of every intelligent man conversant with railroad building in a part of the country where lines of many roads are being constantly extended, can only lead to the conclusion that, in practice, railways are compelled, either by voluntary payment or through the medium of the courts, to pay far more for the acreage composing the right of way, and the damages to property occasioned by constructing the lines, than private individuals would have to pay for the same items for other purposes but, if the railroads are to be constructed or extended, these are elements which some one must pay for, and if the roads are not to be allowed to charge a rate which will furnish a reasonable return on the amount invested for these purposes, I am not quite clear as to who will be found willing to advance the sums

to be expended for these items, and which are expenses which must be incurred before the road can be operated or even constructed.

I am constrained to state my impression from a consideration of the authorities, and the evidence submitted in the several cases, that the state of the law at this writing is such as to render it a practical impossibility for a common carrier to establish the facts necessary to its protection against confiscation, through the medium of confiscatory rates. This applies as well to methods of distributing the receipts and expenditures between inter-state and intra-state traffic as to the proof of value of the plant. The method of proof adopted by the roads in the instant cases were the same employed in several of the cases to which reference has been made in the main opinion herein, the most recent of such cases, however, not having been decided until after the proof was taken in the cases at bar, hence, the railroads find themselves provided only with proof which has met the condemnation of the Supreme Court of the United States, and which, therefore, must be held inadequate by this court.

B. F. SPALDING.

On the 2nd day of February, A. D. 1914, there was entered in this Court the following judgment:

In Supreme Court, State of North Dakota.

STATE OF NORTH DAKOTA ex Rel. T. F. MCCUE, Attorney General, Plaintiff,

vs.

NORTHERN PACIFIC RAILWAY COMPANY, Defendant.

Judgment.

This Court having on the 27th day of May, A. D. 1909, duly entered its judgment in the above entitled proceeding in favor of the plaintiff and against the defendant, which judgment was as follows:

"The Attorney General having filed his verified petition herein asking that a writ issue out of this court requiring and commanding the defendant to put in force the rates fixed by Chapter 51, Laws of 1907, and issue having been joined thereon by the serving and filing of defendant's answer thereto, and the testimony of both parties upon the issues thus joined having been taken before a referee and the same having been reported to this court for examination and consideration, in the form of an agreed record termed a 'Consolidated Record,' and said cause having been submitted by both parties upon said record, which contains all the evidence offered and proceedings taken herein, the court having considered said evidence, the arguments and briefs of counsel, and having made and filed its written opinion sustaining the petition and the validity of said law and the right of the petitioner to the relief asked, now, therefore, in pursuance of such opinion, conclusions and order, it is hereby

Ordered and adjudged, That said act, to-wit, Chapter 51, Laws of

1907, is valid and constitutional; that the petitioner is entitled to the relief asked, and, further, that a writ issue herein requiring and commanding the defendant to put in force the rates prescribed in said act."

And the defendant feeling aggrieved thereby having removed the same to the Supreme Court of the United States by writ of error, and the said Supreme Court of the United States, after a hearing upon the merits, having affirmed the judgment of this court, but conditionally, with the right granted to the defendant to re-open the case, which affirmance and right are embraced in the following language in the decision of said court:

"The same is hereby affirmed with costs, but without prejudice to the right of the railroad company to re-open the case by appropriate proceedings if, after adequate trial, it thinks it can prove more clearly than at present the confiscatory character of the rates for coal, and that the said plaintiff recover against the said defendant, Northern Pacific Railway Company, for its costs herein expended and have execution therefor."

And this court, on the 13th day of September, 1910, pursuant to the ma-date of the Supreme Court of the United States having entered its judgment in terms as follows:

"It is hereby ordered and adjudged that the judgment heretofore rendered and entered by this court be and the same is hereby affirmed, but with the modification that such affirmance is 'without prejudice to the right of the railroad company to re-open the case by appropriate proceedings if, after adequate trial, it thinks it can prove more clearly than at present the confiscatory character of the rates for coal, and that the said plaintiff recover against said defendant, Northern Pacific Railway Company, for its costs herein expended, which are to be taxed by the clerk, and that it have execution therefor.'"

And thereafter, on the 3rd day of July, 1911, the defendant, Northern Pacific Railway Company, having filed its petition for leave to reopen said case, and take further testimony therein showing the confiscatory character of the rates for coal, and this court having allowed the re-opening of said case and appointed a referee therein, before whom said testimony should be taken, and said testimony having been taken and returned into this court and having been duly considered by this court, it is now hereby again

Ordered and adjudged That said act, to-wit, Chapter 51, Laws of 1907, is valid and constitutional, and that the State of North Dakota is entitled to the relief asked, and that the writ of injunction heretofore issued herein requiring and commanding the defendant to put and keep in force the rates prescribed in said act is hereby made permanent and in all things affirmed. And it is ordered and adjudged further, that the petitioner, the State of North Dakota, upon the relation of the Attorney General, do have and recover from the defendant, Northern Pacific Railway Company, its costs herein expended which are to be taxed by the clerk.

Dated this 2nd day of February, 1914.

[SEAL.] R. D. HOSKINS,
Clerk of the Supreme Court.

In the Supreme Court, State of North Dakota.

STATE OF NORTH DAKOTA ex Rel. T. F. McCUE, Attorney General, Plaintiff,
vs.
NORTHERN PACIFIC RAILWAY COMPANY, Defendant.

Now comes the Northern Pacific Railway Company, plaintiff in error, and prays that a writ of error in the above entitled cause may issue to the Supreme Court of the state of North Dakota, to review a certain judgment entered in said court on the 2nd day of February 1914, in favor of the above named plaintiff and against the above named defendant, the Northern Pacific Railway Company, and it assigns the following errors in the rendition of said judgment:

I.

The Court erred in finding that the rates for the carriage of coal prescribed by Chapter 51 of the laws of North Dakota for the year 1907 yield to the defendant Northern Pacific Railway Company any sum in excess of the operating expenses properly chargeable against such carriage.

II.

The Court erred in refusing to hold that such rates are confiscatory and that said Chapter 51 is unconstitutional and void.

Wherefore, the Northern Pacific Railway Company, plaintiff in error, prays that said judgment be reversed, and that the Supreme Court of North Dakota be directed to enter judgment in its favor dismissing the application for injunction herein.

Dated this 2nd day of February, 1914.

CHARLES W. BUNN AND
CHARLES DONNELLY,
Attorneys for Northern Pacific Railway Company,
Plaintiff in Error.

In the Supreme Court of the State of North Dakota.

STATE OF NORTH DAKOTA on Relation of T. F. McCUE, Attorney General, Plaintiff,
vs.
NORTHERN PACIFIC RAILWAY COMPANY, Defendant.

Petition for Writ of Error to the Supreme Court.

The Northern Pacific Railway Company, defendant in the above entitled cause, feeling itself aggrieved by the judgment entered herein on the 2nd day of February 1914, comes now by C. W. Bunn

and Charles Donnelly, its attorneys, and petitions said court for an order allowing said defendant to prosecute a writ of error to the honorable, the Supreme Court of the United States under and according to the laws of the United States in that behalf made and provided; and also that -n order be made fixing the amount of security which the defendant shall give and furnish upon said writ of error, and that upon the giving of such security all further proceedings in this court be suspended and stayed until the determination of said writ of error by the Supreme Court of the United States. And your petitioner will ever pray.

Dated February 2 1914.

CHARLES W. BUNN,
CHARLES DONNELLY,
Attorneys for Defendant.

Allowed.

B. F. SPALDING,
Chief Justice of the Supreme Court of the State of North Dakota.

State of North Dakota, in Supreme Court.

STATE OF NORTH DAKOTA on Relation of T. F. McCUE, Attorney General, Plaintiff,
vs.
NORTHERN PACIFIC RAILWAY COMPANY, Defendant.

Know all men by these presents, that we the Northern Pacific Railway Company, as principal, and the National Surety Company of New York, as surety, are held and firmly bound unto the State of North Dakota in the full and just sum of One Thousand (1,000) Dollars to be paid to the said State of North Dakota; to which payment well and truly to be made we bind ourselves and our successors jointly and severally by these presents.

Sealed with our seals and dated this 31st day of January in the year of our Lord One thousand nine hundred and fourteen.

Whereas, lately in a suit pending in the Supreme Court of the State of North Dakota between the State of North Dakota, on relation of T. F. McCue, Attorney General plaintiff, and the Northern Pacific Railway Company defendant, a final decree was rendered against the said defendant, and the said Northern Pacific Railway Company having obtained the allowance of a writ of error and filed a copy thereof in the office of the clerk of said court, to reverse the said decree in the aforesaid suit, and a citation having issued directed to the said State of North Dakota citing and admonishing it to be and appear at the Supreme Court of the United States at Washington within sixty days from the date hereof; now the condition of the above obligation is such that if the said Northern Pacific Railway Company shall prosecute its writ of error to effect and answer all damages and costs if it fail to make its plea

good, then the above obligation to be void; otherwise to remain in full force and virtue.

NORTHERN PACIFIC RAILWAY COMPANY,
By C. W. BUNN AND
CHARLES DONNELLY,
Its Attorneys.

[CORPORATE SEAL.] NATIONAL SURETY COMPANY.
By W. C. McBUNDY,
Its Attorney in Fact.

Sealed and delivered in the presence of
ERAI CEDARLEAF.
WM. B. JOYCE, JR.

The foregoing bond is hereby approved.
Dated the 2nd day of February, 1914.

B. F. SPALDING,
Chief Justice of the Supreme Court of the State of North Dakota.

UNITED STATES OF AMERICA, *ss:*

The President of the United States of America to the Honorable Judges of the Supreme Court of the State of North Dakota, Greeting:

Because, in the records and proceedings, as also in the rendition of the judgment of a plea which is in the said Supreme Court, before you, at the December Term, 1913, thereof, between State of North Dakota on Relation of T. F. McCue, Attorney General, Plaintiff, and Northern Pacific Railway Company, Defendant, a manifest error hath happened, to the great damage of the said Northern Pacific Railway Company, as by its complaint appears.

We being willing that error, if any hath been, should be duly corrected, and full and speedy justice done to the parties in this behalf, do command you, if judgment be therein given, that then, under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the United States Supreme Court, together with this Writ, so that you have the said record and proceedings aforesaid at the City of Washington, District of Columbia, and filed in the office of the Clerk of the United States Supreme Court, on or before the 4th day of April, A. D. 1914, to the end that the record and proceedings aforesaid being inspected, the United States Supreme Court may cause further to be done therein to correct that error, what of right, and according to the laws and customs of the United States, should be done.

Witness the Honorable Edward D. White, Chief Justice of the United States, this 3rd day of February, in the year of our Lord one thousand nine hundred fourteen.

Issued at office in Fargo, with the seal of the District Court of the United States for the District of North Dakota, and dated as aforesaid.

[Seal United States District Court, North Dakota.]

J. A. MONTGOMERY,
Clerk of U. S. District Court,
By E. R. STEELE, *Deputy.*

Allowed by
HON. B. F. SPALDING,
Chief Justice of the Supreme Court
of the State of North Dakota.

[Endorsed:] State, ex rel. vs. N. P. Coal Case. Writ of Error. 2240. Filed in the Office of the Clerk of the Supreme Court, State of North Dakota, Feb. 9, 1914. R. D. Hoskins, Clerk.

Original.

UNITED STATES OF AMERICA, *ss:*

To the State of North Dakota ex rel. T. F. McCue, Attorney General, Greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States, at Washington, within sixty days from the date hereof, pursuant to a writ of error, filed in the Clerk's Office of the Supreme Court of the State of North Dakota wherein Northern Pacific Railway Company is plaintiff in error and you are defendant in error, to show cause, if any there be, why the judgment rendered against the said plaintiff in error as in the said writ of error mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

Witness, the Honorable B. F. Spalding, Chief Justice of the Supreme Court of the State of North Dakota, this 2nd day of February, in the year of our Lord one thousand nine hundred and fourteen.

B. F. SPALDING,
Chief Justice of the Supreme Court
of the State of North Dakota.

Due service of this citation and receipt of copy thereof is hereby acknowledged this 9th day of February, 1914.

ANDREW MILLER,
Attorney for Defendant in Error,
By JOHN CARMODY, *Assistant.*

[Endorsed:] N. P. Coal Case. Citation. 2240. Filed in the Office of the Clerk of the Supreme Court, State of North Dakota, Feb. 9, 1914. R. D. Hoskins, Clerk.

In the Supreme Court, State of North Dakota.

STATE OF NORTH DAKOTA ex Rel. T. F. McCUE, Attorney General, Plaintiff,

vs.

NORTHERN PACIFIC RAILWAY COMPANY, Defendant.

Certificate of Clerk.

I, R. D. Hoskins, Clerk of the Supreme Court of the state of North Dakota, do hereby certify and return to the Supreme Court of the United States that the foregoing and accompanying record, consisting of typewritten pages A-1 to A-5 inclusive, followed by printed pages of oral testimony 1 to 625 inclusive, followed by typewritten pages B-1 to B-80 inclusive, together with the volume of printed exhibits consisting of pages 1 to 280 inclusive, contains and is a full and complete transcript of the record, judgment and all proceedings had in the Supreme Court of the State of North Dakota in the case entitled "State of North Dakota Ex Rel. T. F. McCue, Attorney General, plaintiff, vs. Northern Pacific Railway Company, defendant," including the opinion of said Supreme Court and all of the testimony taken before the Referee under the order of the Court, which said testimony constitutes and is a part of the record in said case.

And I do further certify and return that I have annexed to said transcript and included therewith, the petition for writ of error with allowance of same, the assignment of errors and prayer for reversal, as the same remain on file and of record in said Court, and the original writ of error and the original citation issued thereon with proof of service thereof endorsed thereon, and that the foregoing constitutes a true, full and complete return to said writ of error.

In witness whereof I have hereunto set my hand and seal of the said Supreme Court of the state of North Dakota, at the capital, at Bismarck, North Dakota, this 9th day of March A. D. 1914.

[Seal Supreme Court, State of North Dakota.]

R. D. HOSKINS,
Clerk Supreme Court, N. Dak.

Endorsed on cover: File No. 24,131. North Dakota Supreme Court. Term No. 980. Northern Pacific Railway Company, plaintiff in error, vs. State of North Dakota on relation of T. F. McCue, attorney general. Filed March 28, 1914. File No. 24,131.

Vol. II

TESTIMONY

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, ~~1913~~ 1914

No. ~~930~~ 420

NORTHERN PACIFIC RAILWAY COMPANY, PLAINTIFF IN ERROR,

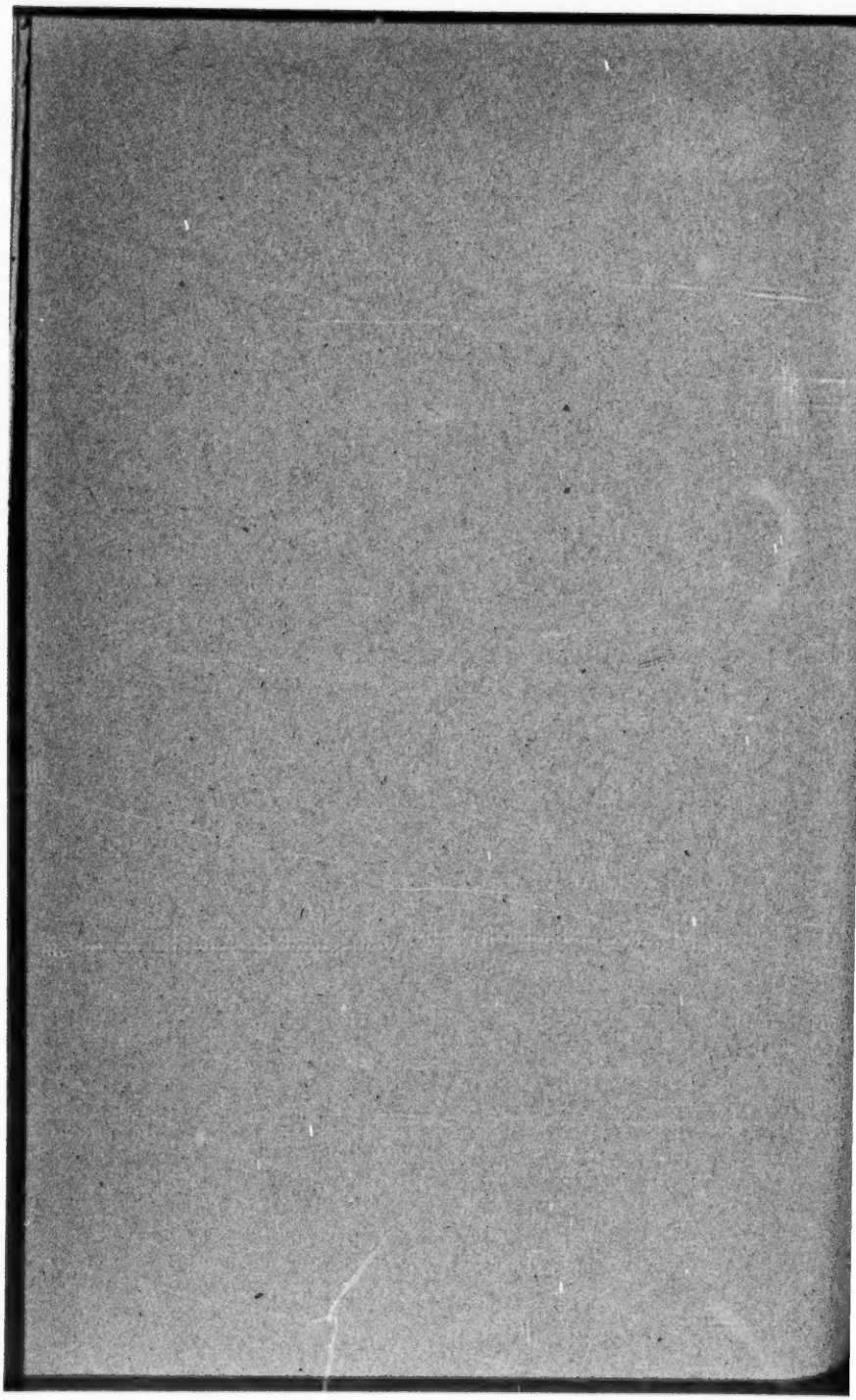
vs.

STATE OF NORTH DAKOTA ON RELATION OF T. F. McCUE, ATTORNEY GENERAL.

IN ERROR TO THE SUPREME COURT OF THE STATE OF NORTH DAKOTA.

FILED MARCH 26, 1914.

(24,131)



IN THE

Supreme Court, State of North Dakota

STATE OF NORTH DAKOTA, Ex Rel., T. F. McCUE, Attorney General,

Plaintiff,

vs.

NORTHERN PACIFIC RAILWAY COMPANY,

Defendant.

STATE OF NORTH DAKOTA, Ex Rel., T. F. McCUE, Attorney General,

Plaintiff,

vs.

GREAT NORTHERN RAILWAY COMPANY,

Defendant.

STATE OF NORTH DAKOTA, Ex Rel., T. F. McCUE, Attorney General,

Plaintiff,

vs.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RAILWAY COMPANY,

Defendant.

INDEX.

	Page
R. Toombs	3
W. J. Buchanan	38
Stipulation as to Assessed Valuation of Soo Road	40
R. Toombs:	
Cross-Examination	44
Further Direct Examination	84
Further Cross-Examination	84
Re-Direct Examination	95
Re-Cross-Examination	104
Re-Direct Examination	119, 122
Stipulation in Re Geological Survey and Census Reports	120
S. W. Derrick:	
Direct Examination	133
Cross-Examination	142
Kingsley L. Kolk:	
Direct Examination	144
Cross-Examination	147
Re-Direct Examination	160
Re-Cross-Examination	161
E. Pennington:	
Direct Examination	162
Cross-Examination	168
W. L. Martin:	
Direct Examination	171
Wm. G. Johnson:	
Direct Examination	180
Offer in Evidence of N. P. Exhibits	182, 234, 254
L. R. Capron:	
Direct Examination	226
Objection to N. P. Exhibits	234
Wm. G. Johnson:	
Cross-Examination	237
Re-Direct Examination	251
Re-Cross-Examination	255

Page

Howard Elliott:
Direct Examination..... 256
Cross-Examination 263
Re-Direct Examination..... 266
Stipulation as to South Dakota Rates..... 267
G. R. Martin:
Direct Examination..... 268
Cross-Examination 292
Re-Direct Examination..... 312
Re-Cross-Examination 320
J. A. Little:
Direct Examination..... 322
Cross-Examination 368
Re-Direct Examination..... 430
Re-Cross-Examination 443
C. W. Hillman:
Direct Examination..... 450
Direct Examination Continued..... 468
Cross-Examination 505
Cross-Examination Continued..... 556
Further Cross-Examination..... 564
Re-Direct Examination..... 591
Re-Cross-Examination 593
Re-Direct Examination..... 594
Re-Cross-Examination 594

REBUTTAL.

R. Toombs:
Re-Direct Examination..... 596
Re-Cross-Examination 617
G. A. Goodell:
Direct Examination..... 618
Cross-Examination 620
W. J. Buchanan:
Direct Examination..... 621
Cross-Examination 622

IN THE

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STATE OF NORTH DAKOTA, Ex Rel., T. F. McCUE, Attorney General,

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Defendant.

TRANSCRIPT OF TESTIMONY.

Now, on this 2nd day of October, A. D. 1911, the above entitled cases coming on for the purpose of taking testimony on the part of the several defend-

ants, pursuant to the several stipulations heretofore entered into by and between the plaintiffs for the state and the defendants, and in pursuance of the order of the court heretofore made and entered, Andrew Miller, Attorney General of the State of North Dakota and C. L. Young, Assistant Attorney General for the State of North Dakota appearing on behalf of the plaintiff, and C. W. Bunn and Charles Donnelly appearing for the Northern Pacific Railway Company, E. C. Lindley appearing for the Great Northern Railway Company, A. H. Bright, John L. Erdall and John I. Dille appearing for the Minneapolis, St. Paul & Sault Ste. Marie Railway Company; the referee heretofore appointed by the Honorable Supreme Court of the State of North Dakota not being able to be present, it is hereby stipulated by and between the representatives of the state and counsel for the several defendants, that for the purpose of taking this testimony, H. H. Cassady shall act as notary public in and for the county of Hennepin, to swear the several witnesses, and all the evidence taken upon this hearing shall have the same force and effect, and used upon the trial of this cause with the same force and effect as though it had been taken before the referee hereinbefore named.

It is agreed that the testimony may be taken in shorthand by I. Mark Oseth, of Bismarck, North Dakota, and transcribed.

And the recalling of the witnesses and the signatures attached to the several depositions herein taken is hereby waived. Said evidence so taken shall be read with the same force and effect as though it had been subscribed and sworn to in the form of a deposition.

The testimony taken in each action shall be considered to be taken in all actions, and may be read in all, so far as applicable thereto.

Hearing held at 2:00 o'clock P. M., October 2nd, 1911, at the office of the Minneapolis, St. Paul and Sault Ste. Marie Railroad, at Minneapolis, Minn., the following proceedings were had:

R. TOOMBS,

called as a witness on behalf of the defendants, was duly sworn, and testified as follows:

DIRECT EXAMINATION.

By Judge Dille:

Q. What is your name? A. R. Toombs.

Q. I believe you are at present, Mr. Toombs, an official of the defendant, the Minneapolis, St. Paul and Sault Ste. Marie Railway? A. I am.

Q. What is that position? A. Auditor.

Q. We know, in a general way the duties of an auditor, but would you outline the scope of your official position? A. I have charge of the accounting, the keeping of the books and records of the company.

Q. That is, of the entire system? A. Yes, sir.

Q. How long have you been connected with the accounting department of railroads? A. I have been in the railway accounting work since the year 1874.

Q. You may briefly give us your experience as an accountant, and in dealing especially with railroad properties and railroad accounts. A. I was clerk in the accounting office from 1874 to 1882. In 1882 I

was made auditor, and have been auditor of railways ever since. Part of the time I was comptroller of a railway company.

Q. I assume that you are perfectly familiar with the railroad methods of keeping railroad accounts, and are familiar especially with the accounts of this company? A. Yes, sir.

Q. I see you have prepared, as a basis for your testimony in this case, certain tables, and have arranged those tables into groups. The first is Group A. Will you briefly explain what Group A is, and the method of its making? A. The theory of the tables under Group A apply the so-called earnings basis for determining the operating expenses. The earnings of a given division or state being determined, a straight pro rate of the total operating expenses to the total earnings has been made.

Q. Is that what is popularly known as the revenue basis, or earnings basis? A. Yes, sir.

Q. Referring to those tables—in Group A what period of time have you covered? A. The so-called fiscal year ending June 30, 1911.

Q. Take the first three columns after giving the date. What do they represent? A. Table No. 1, the first two columns represent the total earnings of the Soo Line, divided under two heads, freight earnings, the one, and all other earnings the other.

Q. Then the first column under the head, freight, represents all freight earnings of the system? A. It does.

Q. And the second column represents the earnings from passenger traffic, express, etc.? A. Passenger, express, mail and all other sources of income.

Q. What does the fourth column in Table No. 1 represent? A. The percentage ratio of operating expenses to gross earnings for the whole line.

Q. Will you explain briefly how you obtain those percentages? A. By applying the figures shown in the seventh column to the figures shown in the third column.

Q. Making the computations by each month. Is there anything in connection with these percentages that you would like to explain to make them perfectly clear to one who is not familiar with that method of apportioning operating expenses? A. The only explanation would be in respect to the next column which uses an arbitrary basis, added to the previously determined percentages, in column four, for operation that would represent the total percentages of local operating expenses.

Q. The next to the last column? A. Yes, sir.

Q. I notice, at the bottom of Exhibit No. 1, a note. Is that the addition that you refer to? A. It is.

Q. Explain what that addition represents, and how you make it. A. The only class of operating expenses that would particularly vary for local traffic would be the so-called transportation expenses, and in this table we have added the transportation expenses to the total expense; in other words, doubled the transportation expenses to apply it to local freight traffic.

Q. What do you mean by transportation expenses? A. The operating expenses are required by the interstate commerce commission to be divided into five classes. Maintenance of way is one, maintenance of equipment another, traffic expenses another, transportation expenses another, and general expenses another. We have used, in this calculation, those ex-

penses classified as transportation expenses. They consist of the train and station service, very largely. They do not include any maintenance items.

Q. Why do you add to the general operating expenses an additional per cent for local transportation? A. It seems to be the consensus of opinion among railroad men, that local operating expenses are greater, always greater, than the regular operating expenses as applied to both local and through.

Q. Do you concur in that opinion? A. I do.

Q. Why do you select double the expense as the representation of that difference? A. That is about the lowest that any recognized railroad authority—any recognized authority in railroad operation has yet admitted.

Q. Well, in the estimates made by various experienced railroad men, how much higher than that do the estimates run? A. Why I have heard it expressed by competent railroad men as running from one hundred to seven hundred per cent.

Q. I take it from your answer that you consider, and it is your judgment that double is practically the minimum per cent that ought to be taken? A. It is, yes, sir.

Q. Take, for instance, the month of July, 1910, and referring to the next to the last column, what do the figures 28-17/100 represent? A. That represents the percentage that the transportation expenses bear to the earnings for the month of July.

Q. And the various percentages appearing in that column represent the same percentages for the different months? A. Yes, sir. They do.

Q. Taking the month of July, 1910, in the last column, what do the figures 84-39/100 represent? A.

They are the sum of the operating expense for the whole traffic added to the excess local expense determined for the local traffic.

Q. Where did you obtain the figures represented in table No. 1? A. From the books and accounts of the company.

Q. And is this table an accurate statement of those figures, as shown by the books of your company? A. Yes, sir, it is.

Q. You may now refer to Table No. 2, Group A, and explain that table? A. This deals with the State of North Dakota, with the earnings accurately determined and apportioned to the State of North Dakota, the relative operating expenses on the basis that the revenue of North Dakota bears to the total revenue of the Soo Line and sub-divides those operating expenses again on the basis of earnings as between freight and all other traffic.

Q. Where did you get your data with reference to these earnings for the state, and how did you arrive at the amount? A. The gross earnings of the state are arrived at by adding to all intrastate traffic the mileage proportion of each shipment or each passenger passing into or out of the State of North Dakota or through the State of North Dakota.

Q. Is there anything additional in connection with this table that you would like to explain? A. I think not.

Q. How do you arrive at the figures stated in the last three columns? A. I apply to each month the percentage of operating expenses to earnings as shown in table No. 1 for the whole line. This determines the total operating expenses for the State of North Dakota, and I sub-divide that into freight expenses and

other expenses again on the relative basis of all the freight earnings to the other earnings for the State of North Dakota by months.

Q. The records of your company are so kept that you can know the gross earnings by months? A. They are so kept, and are of necessity so kept in order to comply with the railroad commission's requirements in the State of North Dakota.

Q. Is that true also of expense? A. The expenses as reported to the commission are not determined on the revenue basis.

Q. You may now refer to table No. 3, Group A, and explain that table? A. This table shows the company's gross earnings for the year in question on lignite coal and applying the percentages determined in table No. 1 for local freight operating expenses, determines the operating expenses for the lignite coal and shows the difference between the gross earnings and such expenses in two columns marked "surplus" and "deficit." and "deficit."

Q. The first column then represents the gross earnings in the state on lignite coal? A. It does.

Q. The second column the operating expense in the movement of lignite coal on the basis you have, and by the method you have explained? A. Yes, sir.

Q. By "surplus" in the third column you mean the amount of the earnings in excess of the operating expense, and by the term "deficit" in the fourth column you mean where the operating expense exceeds the revenue upon lignite coal? A. Yes, sir.

Q. Where did you obtain the data showing the gross earnings upon lignite coal during the fiscal year shown in this table? A. By actual compilations taken from the records of the company covering the shipments.

Q. What data were used to ascertain that question? What documents were examined and what were the methods adopted to ascertain the earnings on lignite coal for that period? A. The records of the stations from which it was billed.

Q. You may now turn to table No. 4, Group A and explain that table? A. This table adds to the previous one the question of taxes as actually paid in the State of North Dakota.

Q. This table refers to the gross earnings in the state for the year 1910? A. That is the gross earnings of the year for which the tax was computed.

Q. Under that general heading you show the gross earnings for that year in the first column. A. The gross earnings for the fiscal year ending June 30, 1911.

Q. Does this table represent the earnings—the gross earnings for the fiscal year ending June 30, 1911, or some other date? A. For the year ending June 30, 1911, except in the note. In the heading which reads, earnings for the twelve months ending December 31, 1910. That is simply inserted there for the purpose of giving a basis for taxes as last paid. It is not possible at this time to say what the earnings for the next year will be.

Q. The purpose of this table is to ascertain the percentage of the taxes to the gross earnings? A. That is the intent of the statement.

Q. In order to get the taxes you had to take the taxes for the year ending December 31, 1910? A. Yes.

Q. In other words the taxes for the year 1911 had not as yet been assessed? A. No.

Q. They had not been paid and the books would not show how much they were? A. No. The taxes

were levied on an advalorem basis and we paid three hundred and thirty-four thousand eight hundred and thirty-one dollars and forty-one cents ($334,831.41) as taxes in 1910; but we earned more money in that period than we did in the fiscal year ending June 30, 1911, and this method therefore has a disadvantage for us. Possibly that would afford a justification for stating that the taxes for 1911 would be at least as great as 1910 and would be a larger percentage of the earnings, but I do not know that. They might reduce the tax.

Q. You took the only data for ascertaining the tax per cent that your office afforded? A. I did.

Q. Is it your judgment that the percentage for the year 1911 would at least equal that of 1910? A. It is.

Q. The second column of this table No. 4 shows the total amount of taxes apportioned monthly? A. Yes, sir.

Q. The third column is the per cent of taxes to the gross earnings? A. Yes, sir.

Q. And what is the fourth column? A. The fourth column represents the local operating expenses as determined in the previous table, that is the local operating expenses taken from the previous table.

Q. What does the last column represent? A. The sum of those two.

Q. In table No. 1 you have found in the last column, or stated in the last column, the local operating expenses per cent of local freight earnings. In table No. 4 you have added to that the tax per cent of the gross earnings? A. Yes, sir.

Q. I believe you stated that in North Dakota your company pays an advalorem tax? A. Yes, sir.

Q. And the taxes represented by this table No. 4 are the actual taxes paid by the company for the year 1910? A. Yes, sir. One other point there: This computation of the reduced earnings would reduce the tax figures. The tax as actually paid was $334,831.41 but to be 7-27/100 per cent of the earnings in the last period ending June 30, 1911, they would have to be $287,060.26.

Q. The only uncertainty about it is that you took the gross earnings for the year 1910? A. To determine my rate or percentage for the tax paid in that year. It is unlikely that the tax, when it is finally determined, will be as low a percentage as I have stated for the next year.

Q. You may now turn to table No. 5 and explain that table? A. This adds to the previous compilation that is the operating expenses and the taxes, the percentage of the earnings required to pay interest on the reproduction value of the property in North Dakota.

Q. Where did you obtain the reproduction value? A. By a report rendered by the Chief Engineer of the company.

Q. That is the authoritative source for the company? A. That is the authoritative source for this information.

Q. I assume in your testimony that when you refer to operating expenses you do not mean to include either interest or taxes? A. I do not.

Q. Taking the first column for the month of July, 1910—I am now referring to table No. 5—the operating expenses and interest on the reproduction value at the rate of 7% per annum, and taxes at the percentage shown in table No. 4, make the total percent-

age of local earnings for that month 136-15/100 per cent. A. Yes, sir.

Q. In other words the business for that month did not pay operating expenses, interest and taxes? A. It did not.

Q. Referring to the third column of the same table, what does that represent? A. The determination of the percentage of earnings for interest for the purpose of adding such per cent to the combined percentage of local freight operation and taxes for each particular month.

Q. At what per cent? A. Interest determined on the basis of 7% on the reproduction values.

Q. You may turn to table No. 6, Group A, and explain that table? A. This is the same in every respect as table No. 5, except that interest is computed on a value known as cost value instead of reproduction value.

Q. Explain what you mean by cost value? A. In the compiling of regular annual reports to the State Railway Commission of the State of North Dakota the cost of construction within the state accumulates and is reported from year to year, together with a prorate of the equipments purchased from year to year, and the aggregate of such accumulation based on cost up to June 30, 1910, was the sum stated in the heading.

Q. You have referred to the cost and also the cost of the property and cost of the improvements and betterments as reported by your company to the Railroad Commission of North Dakota. From what data were those reports compiled? A. The actual expenditure under the supervision of the Chief Engineer.

Q. And as revealed by the records in your office? A. By the actual disbursements on this account.

Q. You may now turn to table No. 7, Group A, and explain that table? A. Applying the total percentage as determined in table 5 to the lignite coal traffic, the table shows the gross earnings, the total expense chargeable against lignite coal traffic for operation, taxes and interest on a reproduction value and the third column shows the resulting deficit.

Q. Table No. 7 relates to the lignite coal? A. Yes, sir, in North Dakota.

Q. You may briefly explain each column and what it shows. It probably is self explanatory, but it may not be improper to explain it more fully. A. The first column shows the gross earnings on lignite coal by months. The second column applies the percentages shown in the last column of table No. 5 month by month. The third column is the difference between the two.

Q. In other words the operating expenses exceeded the gross earnings each month during the year you have taken? A. In this statement the operating expense, taxes, and interest on the investment, yes, sir.

Q. And for that year there is a deficit of $54,-231.68? A. Yes, sir.

Q. You may now refer to table No. 8, Group A, and explain that table. A. This table is the same as table No. 7, substituting the cost value for the computation of interest on the investment instead of on the reproduction values.

Q. The same cost value that you used in the previous table No. 6? A. Yes, sir.

Q. And so far, your tables and testimony have re-

ferred exclusively to what may be termed the earnings or the revenue basis, I believe? A. Yes.

Q. Have you prepared tables on any other basis and if so what basis? A. Under the general classification of Group B, I have prepared similar tables determining the operating expenses on what is called the railroad basis, that is generally adopted on which subdivisions of expenses are made for the guidance of our own officers.

Q. Is the railroad method that you refer to, in its general outline at least, in use by all railroads—at least all the leading roads? A. Either that basis or a very similar one.

Q. Generally speaking what is the purpose of railroads and your railroad especially, in keeping the records on the railroad basis that you have just referred to? A. It is generally believed that it gives more accurate data, more accurate basis of determining the relative expenses than any other.

Q. By that method are you enabled to locate, with reference to departments better than you could under other bases, the divisions? A. Yes, if it would involve the theory of a division being entirely in one state. The entire disbursement of that division would be chargeable to that state, instead of being pro rated among other states on the revenue basis.

Q. Will you explain in a general way the operating divisions and accounting divisions of your road as they relate to North Dakota? A. There are three operating divisions entering North Dakota. The so-called Minnesota Division is joint with the State of Minnesota. The Winnipeg Division, likewise is a joint division between the states of Minnesota and North Dakota, and the Missouri Division is almost

entirely in the State of North Dakota, a very small mileage only being in South Dakota.

Q. Have you prepared a map in colors showing the location of these divisions? A. Yes, sir.

Mr. Dille: This map may be marked "Soo Map Exhibit No. 1."

(Paper marked "Soo Map Exhibit No. 1" by the reporter.)

Q. Will you for the benefit of the record, explain what colors represent these divisions that you have named? The colors indicating the different divisions, with the names, are noted on the exhibit itself? A. They are.

Q. This, then, shows the Minnesota Division in green, the Winnipeg Division in black and the Missouri River Division in blue? A. Yes, sir.

Q. Returning a moment to all of the tables in Group A. Were the figures shown in these several tables taken from the official records of your company? A. They were.

Q. And these tables correctly show these figures? A. To the best of my knowledge and belief they do.

Q. Who, if anybody, had personal supervision of the preparation of these data for those tables? A. One of the clerks in the accounting department.

Q. I want his name, so that when he is called he can be identified. A. His name is W. J. Buchanan.

Q. I don't mean a supervision from some one superior to yourself. I mean some one who did the work under your direction. A. That is the man who actually compiled the figures.

Q. All of this work was done under your supervision? A. Yes, sir.

Q. Have you prepared, Mr. Toombs, an explanation

Dakota during the year in question, and receiving two terminal services. Therefore this number of tons is multiplied by two, in order to get the proper divisor to be applied to the expense.

Q. The freight passing through the state you ignore, because it receives no terminal service? A. No terminal service. I would like to discriminate between terminal and station service. I mean station service. Terminal service includes yard service. Station service was, as shown by the figures, furnished, for 2,236,363 tons. The average carload was 19¼ tons.

Q. That is, of all freight. A. Yes, sir. Therefore station service was furnished for 116,174 cars. The tonnage handled at stations in North Dakota in the month of November, 1910, and April, 1911, in this case also taken as representing the fair average for the year, was, as determined from the records of the company, as follows: Total tons handled, 461,509, included in which was warehouse freight physically handled, amounting to 50,383 tons, this tonnage being equivalent to 10.92 per cent of the total tonnage handled. Applying the factor of twenty to one for the warehouse freight, we produce the following equated cars: Carload freight was 89 per cent, in round figures, or 103,395 cars. Merchandise was 11 per cent, or 12,779 cars, making a total of 116,174 cars, for which station service was furnished. Equating the merchandise cars, and we produce total equated cars, 358,975 cars. The station service expense during the year ending June 30, 1911, as will be shown by a later exhibit, was $184,472.24, applicable to the freight business. Therefore, the cost per equated car was 47.4 cen

Q. For station service? A. For station service. For each station service. As heretofore shown, there were 4,412 cars of lignite coal forwarded and received during the year in question. This, multiplied by two, represents 8,824 receiving station service.

Q. Multiplying by two because each of those 4,412 cars originating at a point and destined to a point in the state, received two station services? A. Yes, sir. The result of the cost of the station service as applicable to the lignite coal business was $4,182.58.

At this time recess was taken until 2:00 P. M., at which time the hearing was resumed pursuant to recess taken.

Mr. Johnson on the stand: Examination by Mr. Donnelly.

Q. Mr. Johnson, it has been suggested that there may be some doubt as to the exact meaning of the words "gross tons" as you have used them in the testimony here, particularly in connection with the explanation you gave of the first subheading under Exhibit N. P. 22. In speaking of gross tons throughout your testimony, what have you meant? A. In speaking of gross tons I refer to the total weight of the car and contents and in speaking of gross ton miles I mean the weight of the car and contents multiplied by the distance hauled.

Q. As distinguished from the contents alone, which would be net tons? A. Yes, sir.

Q. You were not referring to the so-called gross ton of 2,240 pounds? A. No, sir.

Q. In the testimony you have given as to the expense properly chargeable against this coal traffic for station service, has any allowance been made for main-

tenance? A. No allowance whatever for maintenance of the facilities.

Q. Is that true, also, of the yard service, which is the next item? A. That is true, also, of the yard or switching service.

Q. Will you take up the next item of Exhibit N. P. 22, under the subheading of yard service, and explain? A. The subdivision entitled yard service pertains to the cost of switching. In switching a carload of coal destined to, say, Mandan, it is necessary to take the car out of the train, then switch it to the spur or industry track for unloading, and the reverse of these two movements is true in regard to the empty car, making, in all, what might be termed four rated car switch movements. In handling a car at a division terminal, that is passing through the terminal, the switch work involves taking the car out of the train, in case it is necessary to put it into another train, and such switching—train switching, may be classified as one switch movement. Using this as a basis in connection with Exhibit 21 for the computation of the cost of switching lignite coal, we have the following results—and these results are based on information derived from the records of the company pertaining to the cost of switching at terminals in the state of North Dakota, and which discloses that the average cost per car movement is twenty-five cents. Taking the cars shown in Exhibit N. P. 21, and we secure the following results: 2,532 cars received from the Soo Line at Bismarck, on which the Northern Pacific performed half of the switching, (and on which the revenue is included with the lignite coal revenue) counted as two movements, equals 5,064 rated cars. 3,296 cars on which the Northern Pacific

furnished full terminal switching, rated as four movements, equals 13,184 rated cars. Making and breaking up trains, one movement, 1,636 rated cars; total of 19,884 rated car switch movements in connection with the lignite coal traffic during the year ending June 30, 1911. And this number of cars, multiplied by twenty-five cents, yields an expense for switching of $4,971.00.

Q. Now, then, in order to get at the twenty-five cents per movement, Mr. Johnson, if I understand you, you have taken from the records of the company the actual expense for the year 1911 for performing the switching car service at the three stations of Fargo, Jamestown and Mandan? A. Yes, sir.

Q. Those are not all of the stations in North Dakota at which switching is performed, are they? A. No, sir.

Q. Why were they selected? A. As being typical of the average cost of switching in North Dakota.

Q. Are they so in fact, in your judgment? A. Yes, sir.

Q. That total expenditure was $149,471.21? A. Yes, sir.

Q. From your records you ascertained that at those three places there were performed, in the course of the year, 599,022 car movements of the character you have described here as being switching movements? A. Yes, sir.

Q. Showing that the average cost per car was twenty-five cents per car movement? A. Yes, sir.

Q. With that average cost ascertained in that way —take the 2,532 cars received from the Soo Line at Bismarck on which the Northern Pacific performed only half of the switching, you count two movements

as to each of those cars. Where do you get those two movements from? A. One is going over to the interchange track—moving the car over into the yard. The second is setting the car into the train.

Q. So that is independent of any subsequent switching that may be done at the point of destination of that car on the line of the Northern Pacific? A. Or at any intermediate terminal, yes, sir.

Q. If, then, any one of those 2,532 cars, to which you have given a total of 5,064 rated car movements, actually went to a destination at which there was this switching movement of four movements involved, these additional four movements are included in the next line, are they? A. Yes, sir, in the 3,296 cars. That is correct.

Q. In other words, the switching movement you have allowed those 2,532 cars are simply such movement as are involved in the receipt of those cars by the Northern Pacific from the Soo Line at Bismarck? A. Yes, sir.

Q. Now, then, these 3,296 cars, do you know from your records that each of them went to a point at which there was this additional movement—these additional four movements? A. Yes, sir, 3,296 cars went to a point at which the Northern Pacific maintained switch engine service.

Q. This last item, making and breaking up of trains, one movement, deals only with cars going to a destination where there would be no switching movement involved in the delivery of the car—where the only switching movement was such as was involved in the making or breaking up of the train in the course of its progress from the originating point to the point of destination? A. Yes, sir, that is true.

Q. And there was one such movement as to each one of these cars? A. Yes, sir.

Q. Making a total of 19,884 movements in all, which, multiplied by twenty-five cents, the cost per car, gives a total charge against the coal traffic for switching movements? A. Yes, sir, not including anything for maintenance.

Q. Taking the next item, which is freight car repairs, go ahead and explain that. A. As stated in the exhibit, wear and tear of a freight car does not depend wholly upon the number of miles run, because a large amount of damage is done by switching service. Under car service rules, forty-eight hours are allowed for loading. Therefore the short haul business receives greater use of the freight car than the long haul business. Taking these facts into consideration, and assuming that the average travel of a car is twenty miles per day, the relative cost for repairs for freight cars in the lignite coal service as compared with all freight business is shown by the figures following: First, all business. Under the head of car miles we show loaded 227.7 miles, which is the average haul of all freight in the state of North Dakota. We next add, for the empty movement of cars, 18.43 per cent, which equals 42 car miles, making the total actual car miles 269.7. Add, for four days free time at twenty miles per day, eighty miles, and we have a total comparative car mileage for all business of 349.7.

Q. That includes, now, the loaded car miles. 18.43% of that loaded car mileage represents the empty mileage necessary to haul the loaded mileage, and the four days free time at twenty miles per day? A. Yes, sir. As will be shown in Exhibit N. P. 23, the cost of

freight car repairs per actual car mile, both loaded and empty, was 1.2 cents.

Q. Where? In the state of North Dakota during the year in question? A. Yes, sir.

Q. The actual cost? A. Yes, sir.

Q. Per car mile? A. Per freight car mile, so that we multiply the 349.7 miles by 1.2 cents, and produce $4.20. Dividing this by the actual miles that were traveled by the car, 269.7, we produce a comparative cost per actual mile for all business, of 1.56 cents.

Q. On all business? A. All freight business in the state of North Dakota. Applying the same method with regard to lignite coal, we have loaded car miles representing the average haul of lignite coal, 79.1 miles. Adding to this the empty car mileage, 72.23% of the loaded car mileage, we produce 57.1 car miles, the sum of both being 136.2 miles of actual car travel. To this we add four days free time at twenty miles, or eighty miles, and produce a total comparative car mileage of 216.2. Multiplying this by the average cost per actual car mile, 1.2 cents, we have $2.59 to represent the cost of freight car repairs, being 136.2 actual car miles, or a cost of 1.9 cents per actual mile. This 1.9 cents is 21.8% more than the average for all business or 1.56 cents. I therefore claim that it is fair to add to the average cost per mile for this item of expense as applied to the lignite business, 21.8%, and that has been done in the subsequent figures showing the total car mileage in connection with lignite coal business. 593,462 actual car miles at 1.2 cents equals $7,121.54. Adding to this the 21.8 per cent, or $1,552.50, the result is $8,674.04 for repairs of freight cars in connection with the lignite coal business for the year ending June 30, 1911.

Q. Now, Mr. Johnson, the process by which you get that 21.8 per cent excessive cost chargeable against the lignite business is, perhaps, a rather involved one, or, at least, one not easy to follow, as it is stated, right off. But the purpose of this entire computation, as I understand you, is to show that there is an actual justification for making, upon a business which covers only short hauls as this lignite coal business does, a greater charge for freight car repairs than is made on business which, like the average entire traffic for the state, moves, on the average, 227 miles? A. Yes, sir, that is one of the factors in the excess cost of short haul over long hauls.

Q. And that is the purpose of this computation, to show that there is a justification for making that excess charge? A. Yes, sir.

Q. In all the figures for the loaded car mileage of the coal business, as shown at the bottom of this subdivision is exact, is it not? A. Yes, sir, as shown by previous exhibits.

Q. And the empty car mileage is exact? A. Yes, sir.

Q. And the 1.2 cents per mile charged for freight car repairs in North Dakota during the year 1911 is exact? A. Yes, sir, taken from the company's records.

Q. So that, assuming that the lignite coal business bore only its exact proportion of all North Dakota business, the 459,462 car miles multiplied by the 1.2 cents per mile would give the right amount chargeable against that business, assuming that it bore only the same proportion of the expense that other business does? A. Yes, sir, that is true.

Q. The only disputable item, then, in this subdivision

or sub-head of your exhibit, is the additional 21.8 per cent? A. Yes, sir.

Q. Is that disputable, in your judgment? A. I do not think so. Not under the conditions stated and for the reasons that I have stated.

Q. Then, passing to the next item in this exhibit, covering loss and damage, traffic expense and general expenses, just explain that. A. This loss and damage I have looked upon as one might look upon the matter of insurance. That is to say, that there is just as much chance of wrecking five cars of lignite coal as for wrecking five cars of stone. I have therefore considered that if this item is charged to the lignite coal business in proportion to the revenue, we are assigning to that business only its fair proportion of this amount. Traffic expense and general expenses I have likewise treated, because there is no known method at all, so far as my experience goes, which will correctly charge to any class of traffic the exact amount that that traffic should bear. The result of these three items in connection with the lignite coal traffic is, as shown by the exhibit, a charge of $2,688.26, being 4.56 per cent of the revenue received from the traffic.

Q. What are traffic expenses? A. Traffic expenses are items such as salary of the traffic manager, his expenses, and the expenses of his office and force.

Q. Advertising? A. No, advertising in connection with the freight business is in fact very little. So small, in fact, as to be negligible. Then the stationery used by the traffic department, etc.

Q. And general expenses? A. Salaries and expenses of general officers, general office building expenses, etc.

Q. You have ascertained and shown in a subsequent

statement that these three items of expense in North Dakota for the year 1911, that is, loss and damage, traffic expenses and general expenses, were 4.56 per cent of the freight revenue from that state during that year? A. Yes, sir.

Q. That is shown by the records of the company? A. Yes, sir.

Q. Therefore you have charged the coal traffic, on account of those items, with 4.56 per cent of the entire coal revenue for the year, or $58,953.07? A. Yes, sir.

Q. The item thus charged amounting to $2,688.26? A. Yes.

Q. Calling your attention, now, to statement, N. P. 23. (Paper produced and marked N. P. 23 for identification.) Will you show or state what that statement shows? A. This exhibit shows the freight operating expense in the state of North Dakota for the year ending June 30, 1911, applicable to all freight traffic in the state, and merely to freight.

Q. The first item is station service? A. Yes, sir.

Q. Covering? A. Covering various accounts coming under that head, and applicable to the cost of that particular item, such as station employees, station supplies, and expenses and other expenditures in connection with the handling of the business at stations.

Q. The next item, yard service. A. Under the head of yard service—

Q. (Interrupting witness). No need of going into the details. You show a total of $163,794.77? A. This represents the amount chargeable to, or in connection with, the yard or terminal service, including switching.

Q. And then train operation. You show a total

of $1,465,908.88. A. This includes all the expense that is applicable to the operation of freight trains.

Q. In North Dakota for that year? A. Yes, sir.

Q. Are these actual figures? How are they ascertained? A. From the records of the company.

Q. Covering simply North Dakota for that year? A. Yes, sir.

Q. Those three items taken together, station service, yard service and train operation make a total transportation expense chargeable to the freight business of North Dakota, of $1,814,175.89. Is that carrect? A. Yes, sir, but it ought to be also shown in the record that it not only includes what is commonly known as transportation expense, but also the expenditures in connection with road engines, so as to show, under the head of train operation, everything that pertains to that operation.

Q. Now, then, what use do you make of that figure? What is your purpose? A. You will note that upon the side of the statement we use the total for train operation, or $1,465,908.88 to arrive at the equated ton mile cost for all the business in the state, in order to arrive at the cost of handling the lignite coal business, as will be demonstrated in the next exhibit, N. P. 24. In other words, dividing this sum by the ton mileage mentioned and shown on the exhibit, we arrive at a cost per one hundred equated ton miles, of 15.811 cents.

Q. That is for train operation? A. For train operation, yes, sir.

Q. Now, those equated ton miles you have ascertained by the method previously described of taking the main line way freight trains and the branch line trains, and multiplying them by the figures previously

ascertained, as showing the relation which those miles sustain to the main line through freight trains? A. Yes, sir, as shown by the third subdivision of Exhibit N. P. 22.

Q. You ascertained, in that way, that it cost, for each one hundred equated ton miles, for train operation expenses, 15.811 cents? A. Yes, sir.

Q. Go on with the next item. A. The next item is maintenance of equipment, repairs, renewals and depreciation of freight cars, showing $518,697.37, which, divided by the actual revenue car miles of 43,168,035, produces a cost of 1.2 cents per actual revenue car mile. This figure is used in Exhibit N. P. 22, and also in N. P. 23.

Q. As showing the cost of freight car repairs? That is what you mean by maintenance of equipment? A. Yes, sir.

Q. Under the head, or after the term "maintenance of equipment" on this statement, you have the words "general charges apportioned." What do you mean by that? A. That is all of the mechanical supervision, the salary of the Superintendent of Motive Power and his force, and the stationery used is apportioned to the repairs to freight cars and engines in the freight service in accordance with the expenditures charged to each. It is pro-rated between the different classes of repairs.

Q. How do you ascertain the North Dakota proportion of the amount or the figure $518,679.37? A. That is the actual cost of the repairs, renewals and depreciation, taken from the records of the company, and the pro-rata proportion of the general charges referred to.

Q. Except for this pro-rata proportion, it repre-

sents money actually expended on the equipment in North Dakota? A. Yes, sir, directly.

Q. What proportion of that total is this apportioned amount? Is it a considerable proportion? A. No, very small.

Q. Then, take the next item, maintenance of way and structures. A. This is the total charge against maintenance of way and structures as shown by our records, repairs, renewals and depreciation of work cars, which, under the Interstate Commerce Commission classification comes under the captain of maintenance of equipment, but is really a part of the cost of maintaining the company's facilities.

Q. Does it deal with any other part of the Northern Pacific than North Dakota? A. No, sir.

Q. Merely for North Dakota? A. Yes, sir, the whole statement pertains to North Dakota.

Q. For the year 1911? A. Yes, sir.

Q. And represents the money actually expended there? A. Yes, sir.

Q. What inference do you draw from that? A. That the cost per actual revenue ton mile, based on 701,732,022 revenue ton miles shown in Exhibit N. P. 19, is .0759 cents per ton mile.

Q. In other words, about three-fourths of a mill? A. Yes, sir, one cent would be 7,000,000.00 dollars.

Q. Now, pass on, then, to the next three items of the loss of freight, traffic expenses and general expenses, that you have already explained in connection with your explanation of the last item on Exhibit N. P. 22 have you not? A. Yes, sir. And these figures only substantiate the calculation used in the exhibits referred to.

Q. Here we have the actual figures upon which

calculations at the close of N. P. 22 are based? A Yes, sir.

Q. The total calculation amounts to what? A. In round numbers $6,368,000.00.

Q. And the total expenses for loss and damage to freight, traffic expenses and general expenses were $290,468.66, or 4.56% of the freight revenue? A. Yes, sir, of the freight revenue.

Q. Taking the item, loss and damage to freight, or $133,000.00, how did you ascertain the North Dakota proportion? A. That was taken from our records of operating expenses.

Q. Actually paid upon North Dakota shipments? A. Yes, sir.

Q. How is it ascertained? A. That is a very complicated proposition. There may be some charges in there which we call concealed losses. For example, a shipment may be waybilled from St. Paul to Helena, and during transit it becomes damaged, or part of it becomes lost. It is impossible to tell from the record just where that happened, therefore the method of dividing such loss is on the travel of the shipment in North Dakota, and North Dakota in that case would stand its mileage proportion. Aside from that, the expenditures are actual.

Q. Take the item of traffic expense, how is that ascertained? A. The traffic expenses are unapportioned items, distributed over the entire business of the company, and generally speaking and as shown in the pamphlet that we have furnished the commission, they are divided on the train mileage basis.

Q. The same is true of general expenses? A. Yes, sir. Generally.

Q. North Dakota is charged with its proportion

of the expense on the train mileage basis? A. Yes, sir.

(Paper produced, and marked "N. P. 24" for identification.)

Q. Calling to your attention Exhibit No. N. P. 24. This, as I understand, is a recapitulation of what has been shown in previous exhibits? A. Yes, sir, it is a summary of the cost and expenditure chargeable to the handling of lignite coal in the state of North Dakota for the year ending June 30, 1911.

Q. Take the first item, train operation expenses. You show 9,380,678 ton miles. Where do you get that from? A. The ton miles are taken from Exhibit N. P. 19.

Q. That was the ton mileage of coal in North Dakota during that year? A. Yes, sir.

Q. You reduced that to 19,699,424 equated ton miles. How do you get those equated ton miles? By multiplying the actual ton miles by 2.1? A. Yes, sir, 2.1, which is shown in the second subdivision of Exhibit N. P. 22, and this result is multiplied by 1.5811 mills per ton mile, shown in Exhibit N. P. 23, producing, for train operation, $31,146.76.

Q. That is for the train operation expense incident to the movement of this coal? A. Yes, sir.

Q. The next item, switching? A. The next item, being 19,884 car movements at twenty-five cents, or $4,971.00 has heretofore been explained in connection with the fifth subdivision of Exhibit N. P. 22.

Q. The next item of station service? A. The item of station service, 4,412 cars, multiplied by 2 terminal services, or 8,824 cars handled, at 47.4 cents per car, or $4,182.58, was explained in connection with the fourth subdivision of Exhibit N. P. 22. The sum

of the three foregoing items is merely a matter of addition, in order to reach the total of $40,300.34.

Q. Why do you not add those two items separately? A. There is no particular reason for doing that.

Q. Take the next item. A. Repairs to freight cars, 8674.04, has been explained under the head of the sixth subdivision of Exhibit N. P. 22.

Q. And the next item, maintenance of way and structures? A. 9,380,678 ton miles at average cost of 0.759 mills, or $7,119.93 is brought over from Exhibit N. P. 23. In other words, there has been assigned to the lignite coal business the same cost per revenue ton mile for maintenance of way and structures as against the average freight business of the company, and the reasonableness of this is based on the fact that it requires slightly more gross ton miles to produce a given number of net ton miles.

Q. The next item is the proportion chargeable against the coal traffic, on the loss and damage, traffic and general expenses ascertained on the revenue basis, as you previously explained? A. Yes, sir.

Q. And gives you a total operating expense chargeable against the coal business of how much? A. $58,782.57.

Q. The next item, taxes. How is that item ascertained? A. The taxes were ascertained by dividing the total tax paid by the company in the state of North Dakota, by the revenue—the whole revenue in North Dakota, ascertaining the percentage that the taxes bear to such total revenue, the result being 4.112 per cent.

Q. By dividing the revenue you mean allowing North Dakota full credit for all business passing through the state and coming into and going out of

the state? A. Yes, sir. The result of applying this percentage to the revenue derived from the coal traffic, or $58,953.07, is a charge for taxes of $2,424.15. Adding this to the operating expenses, as hereinbefore stated, we have a total charge against the lignite coal business in North Dakota, for the year in question, of $61,206.72, as against the revenue from the traffic of $58,953.07, or a deficit of $2,253.65.

Q. Now, then, Mr. Johnson, these exhibits were all made under your supervision? A. Yes, sir, under my direction and supervision.

Q. Do they each and all represent the figures actually shown by the records of the company? A. Yes, sir, and all available from the records of the company.

Q. Are those records available for the inspection of the attorney general and his assistants? A. Yes, sir.

Q. Are the figures as stated on these exhibits true to the best of your knowledge and belief? A. They are.

Mr. Donnelly: Then all of these exhibits are offered in evidence, Mr. Miller, Exhibits N. P. 1 to N. P. 24, inclusive.

Q. Taking these various items shown on Exhibit N. P. 24, Mr. Johnson, the first item of train operation and expense, you have fully explained the method by which you reach the result shown on that statement—the sums as to switching and station service. As to repairs to freight cars, that has been an actual ascertainment of the amount expended for the repairs of freight cars in North Dakota, has it? A. Not in North Dakota. For instance, a great many freight cars are repaired at the shops here, and the cost of the repairs is distributed on the car mileage

basis all over the system. I mean by that to say that the money is not actually paid out in the state of North Dakota, but it is chargeable to North Dakota traffic.

Q. Is that method that you have pursued the best method for getting accurately at the cost of repairing freight cars? A. It is the only known method, as far as my knowledge goes in the railroad business.

Q. What have you to say as to the item of maintenance of way and structures, and the method pursued by you in getting your results as to that item? The maintenance of way and structures is strictly local? A. Yes, sir, with the exception perhaps the general supervision as to the engineering department, and items of that nature, which is pro-rated in proportion to the money expended over which the department has jurisdiction.

Q. That is only a very small percentage of the total? A. Yes.

Q. As to that item you have charged North Dakota with its proportion upon what basis? A. On a maintained mileage basis. Maintained track miles.

Q. Is there any better method than that available for ascertaining the amount chargeable as for that item? A. That is the closest method that I am conversant with.

Q. You have already stated that as to the loss and damage, traffic and general expenses items, the revenue basis you have deemed the best method you know of? A. Yes, sir, it is the best method I am conversant with.

Mr. Donnelly: Well, then, that is all, I think.

L. R. CAPRON,

called as a witness for the defendant, the Northern Pacific Railway Company, was duly sworn, and testified as follows:

DIRECT EXAMINATION.

Examination by Mr. Donnelly:

Q. Mr. Capron, where do you reside? A. In the city of St. Paul.

Q. What is your occupation? A. Chief rate clerk of the Northern Pacific Railway Company.

Q. How long have you held that position? A. Chief rate clerk?

Q. Yes. A. Nearly two years.

Q. What was your occupation previous to that time? A. Rate clerk.

Q. Of the Northern Pacific Railway Company? A. Yes, sir.

Q. How long have you been in that department? A. Nearly eight years.

Q. What are the duties of that position? State them briefly. A. The duties are so varied that it would be hard to define them. Of course they pertain to matters pertaining to the rates of the company and supervision over the quotations to the public, interpretation of tariffs, preparing statements for use in compiling freight tariffs.

Q. Is it a part of your duties to be familiar with rates in effect upon other lines in other parts of the country? A. It is.

Q. How do you ascertain those rates? A. From tariffs filed with the commission, which are also furnished us, or secured from the different lines.

Q. It is upon those tariffs so secured, or obtained from the Commission, that you quote the rates that are quoted upon lines in other parts of the country? A. Yes, sir.

Q. Have you prepared some statements, Mr. Capron, comparing the rates in effect for the movement of coal within the state of North Dakota as fixed by the Legislature in question, with rates in effect in other parts of the country for the movement of a similar commodity? A. Yes, sir.

(Statement marked "N. P. 25" for identification and handed to the witness.)

Q. I show you the statement marked N. P. Exhibit No. 25, and will ask you to state what that is, Mr. Capron. What does it show? A. It shows the North Dakota statutory rates compared with rates on soft coal now in effect in the state of Iowa, ordered in by the Board of Railroad Commissioners of the state of Iowa. It also compares them with rates ordered in by the same board, which were enjoined by the Circuit Court.

Q. The United States Circuit Court? A. Yes, sir, the injunction is still in force.

Q. Taking a given distance, as for instance, twenty-five miles, you show, first what the rate is on lump and nut soft coal in the state of Iowa, namely, forty-six cents; next, what the rate is, or would be if the enjoined rates were in effect, namely, forty-three cents; next, what the present rates are on pea and slack coal, as contrasted with the North Dakota legislative rate, or thirty-eight cents, for the same distance? A. Yes, sir, that is correct.

Q. That is shown for various distances up to four hundred miles? A. Yes, sir.

Q. The rates in all cases, both the enjoined rates and the lump and nut rates now in effect being higher for corresponding distances than those fixed by the North Dakota Legislature? Is that correct? A. Yes, sir.

Q. Those rates were taken from what—the information shown on this exhibit? A. They were taken from Iowa Classification 14, issued by the Board of Railroad Commissioners, and containing distance rates on soft coal.

(Paper produced and marked "N. P. 26" for identification.)

Q. I show you N. P. Exhibit 26, and will ask you to state what that shows? A. It shows the rates on soft coal in force on the C. N. W. railway from Chicago, Illinois, to stations in Illinois and Iowa, at distances from twenty-five to four hundred miles from Chicago.

Q. Contrasting the rate in each case with the rate fixed for the corresponding distances for the state of North Dakota here in question? A. Yes, sir.

Q. And the tariffs from which those rates are taken is indicated at the bottom of the Exhibit, is it? A. Yes, sir.

(Paper marked "N. P. Exhibit No. 27" for identification.)

Q. I show you now N. P. Exhibit No. 27, and will ask you to state what that shows. A. It shows the rates on soft coal from Kansas City, Missouri, to stations on the Missouri Pacific Railway in the state of Missouri, from twenty-four to two hundred and fifty-one miles distant from Kansas City, as compared with the North Dakota statutory rates.

Q. And the tariffs from which that information is

taken is indicated at the bottom of the exhibit? A. Yes, sir.

Q. Those are the rates now in effect? A. Yes, sir.

(Paper produced and marked "N. P. Exhibit No. 28" for identification, and handed to witness.)

Q. I show you N. P. Exhibit No. 28, and will ask you to state what that shows. A. That shows the distance tariff rates in the state of Kansas for distances from twenty-five to four hundred miles. These are legislative rates, and were put in by the Missouri Pacific Railway under protest.

Q. That protest is shown at the bottom of the exhibit? A. Yes, sir.

Q. That protest appears on the tariff publishing the rates at the present time? A. It does. The statement shows those rates as compared with the rates in effect prior to the legislative enactment of May 29, 1909; also as compared with the statutory rates in North Dakota, on lignite coal.

(Paper produced, marked "N. P. Exhibit No. 29" for identification and handed to witness.)

Q. I show you N. P. Exhibit No. 29 and will ask you to explain that. A. Exhibit 29 shows the rates on soft coal from Kansas City, Missouri, to stations on the Missouri Pacific Railway in Kansas and Missouri, to stations from twenty-five to three hundred and ninety-seven miles distant from Kansas City, on both lump and slack coal as compared with the North Dakota statutory rates.

Q. The tariff from which those rates are taken being shown at the bottom of the exhibit? A. Yes, sir.

(Paper marked "N. P. Exhibit 30," for identification, handed to witness.)

Q. I show you N. P. Exhibit No. 30. Explain that. A. Exhibit No. 30 shows the rates in force on the Union Pacific Railroad from Rock Springs, Wyoming, to stations from twenty-five to three hundred and ninety-five miles distant from the mines, as compared with the North Dakota statutory rates.

Q. The tariff from which they are taken being shown at the bottom? A. Yes, sir.

(Paper marked "N. P. Exhibit No. 31" for identification handed to witness.)

Q. Exhibit No. 31? A. Is a statement of soft coal rates in effect on the "Santa Fe," from Pittsburg, Kansas, to stations from twenty-four to four hundred miles distant from that point, as compared with the North Dakota statutory rates.

Q. That shows the rates both on soft coal and on slack? A. Yes, sir.

Q. And the tariff from which they are taken being indicated at the bottom? A. Yes, sir.

(Paper marked "N. P. Exhibit No. 32," for identification, handed to witness.)

Q. Exhibit No. 32? Exhibit No. 32 is a statement of Nebraska distance tariff rates for distances from twenty-five to four hundred miles, as compared with the North Dakota statutory rates. These rates are taken from the C. N. W. tariff 1602-A, I. C. C. 6474, which is in our files. On the face of this issue is stated that the rates contained therein were published under protest, and the right to contest the same is reserved.

(Paper marked "N. P. Exhibit No. 33," for identification, handed to the witness.)

Q. I show you N. P. Exhibit No. 33. Please explain that exhibit. A. Exhibit No. 33 shows rates in effect on soft coal over the Chicago & Eastern

Illinois Railroad, from Brazil, Indiana, to stations in Indiana and Michigan, twenty-five to four hundred miles distant from that station, as compared with the North Dakota statutory rates.

Q. The tariff from which they are obtained is shown on the exhibit? A. Yes, sir.

(Paper marked "N. P. Exhibit No. 34," for identification, handed to witness.)

Q. And Exhibit No. 34? A. Shows the rates in effect on soft coal on the Big 4 Railroad, from Carbon, Indiana, to stations on that line in Indiana and Michigan for distances from twenty-five to two hundred and fifty-three miles from Carbon, as compared with the North Dakota statutory rate.

Q. And the tariff from which they are taken is shown at the bottom of the exhibit? A. Yes, sir.

(Paper marked "N. P. Exhibit No. 35," for identification, handed to witness.)

Q. N. P. Exhibit No. 35? A. Shows the rates in effect on bituminous coal over the Baltimore & Ohio Railroad, from Bellaire, Ohio, to stations in Ohio and Indiana for distances from twenty-three to four hundred and five miles from the mines, as compared with the North Dakota statutory rates. The tariff from which these rates are taken is indicated on the exhibit.

(Paper marked "N. P. Exhibit No. 36," for identification, handed to the witness.)

Q. I show you N. P. Exhibit No. 36, and ask you to explain what it is? A. Exhibit 36 shows the rates on soft coal from Lilly, Pennsylvania, in effect on the Penna. R. R., to stations in Pennsylvania and Ohio from twenty to four hundred and one miles distant, as compared with the North Dakota statutory

rates. The tariff from which these rates are taken is indicated on the exhibit.

(Paper marked "N. P. Exhibit No. 37," for identification, handed to the witness.)

Q. N. P. Exhibit No. 37? A. Shows the distance rates in force in the state of South Dakota for distances from five to five hundred miles distant, as prescribed by the South Dakota Railway Commission, as compared with the North Dakota statutory rates.

Q. I do not believe you have indicated, at the bottom of this sheet. Those are the rates recently made effective in that state, are they? A. Yes, sir, shown at the top.

Q. The tariff from which those rates are taken bears an endorsement that the rates are put in effect under protest, does it not? A. Yes, sir.

(Paper marked "N. P. Exhibit No. 38," for identification, handed to the witness.)

Q. N. P. Exhibit No. 38 shows what? A. N. P. Exhibit No. 38 shows the distance rates in force on the Lake Shore, Michigan Southern Railway, for distances from twenty-four to five hundred miles, as compared with the North Dakota statutory rates. The tariff from which these rates are taken is shown at the bottom of the exhibit. This is for the entire system. No specific rates are published.

(Paper marked "N. P. Exhibit No. 39," for identification, handed to the witness.)

Q. Exhibit N. P. No. 39? A. N. P. 39 shows Arkansas maximum rates, which were established by order of the Circuit Court of the United States for the Western Division of the Eastern District of Arkansas. The order is dated April 19, 1909. The rates became effective June 1, 1909. The exhibit

shows these rates for distances from twenty-five to four hundred miles on coal coke and on slack coal as compared with the North Dakota statutory rates.

Q. The tariff from which those rates are taken, is that indicated on the exhibit? A. No, it is not shown.

Q. These tariffs, entitled Court Tariffs, apply to coal, coke and slack coal between railroad stations in Arkansas, issued in accordance with the order of the Circuit Court of the United States for the Western Division of the Eastern District of Arkansas, dated April 19, 1909, effective June 1, 1909. A. That is correct.

(Paper marked "N. P. Exhibit No. 40," handed to the witness.)

Q. I show you N. P. Exhibit No. 40, and ask you to state what that is? A. N. P. Exhibit No. 40 shows the rate for the average distances from the M., K. & T. Ry. mines to Denison, Texas. I should have said, the rate in effect prior to the reduction ordered by the Interstate Commerce Commission in case 1097, 14 I. C. C. 216, as compared with the rates set by the Interstate Commerce Commission in that state, and the North Dakota statutory rate for a similar distance.

(Paper marked "N. P. Exhibit No. 41," for identification, handed to witness.)

Q. Please explain what N. P. Exhibit No. 41 shows? A. N. P. Exhibit No. 41 is a statement of soft coal rates in effect on the Erie Railway from Johnsonburg, Pennsylvania, to stations on that line in Pennsylvania and New York, for distances from twenty-four to three hundred and ninety-nine miles from the mine, as compared with the North Dakota

statutory rates. The tariff from which they are taken is indicated on the exhibit.

(Paper marked "N. P. Exhibit No. 42," for identification, shown to witness.)

Q. And N. P. Exhibit No. 42? A. N. P. Exhibit No. 42 shows the rates in effect from the George's Creek Basin Pennsylvania fields and West Virginia fields, to Baltimore, Maryland, for local delivery, to Baltimore for water shipments inside the capes, and to Baltimore, for water shipments outside the capes, as compared with the statutory rates of North Dakota for similar distances. These figures are taken from the case of *George's Creek Basin Coal Company vs. The Baltimore & Ohio Railroad,* 14 I. C. C. 127.

Q. They are rates prescribed by the Commission in that report? A. No, they were not prescribed by the Commission. That case was—the point involved was a relative adjustment, and the reasonableness of the rate was not questioned by the complainants.

Q. The rates were continued in effect after that decision? A. Yes, sir, continued in effect.

Mr. Donnelly: Now, then, I will offer in evidence N. P. Exhibits Nos. 25 to 42 inclusive.

Mr. Young: To each of these exhibits the state objects upon the ground that it is incompetent, irrelevant and immaterial, it not being shown that the schedule of rates is reasonable within the traffic district in which it is in effect, and it not appearing that the traffic conditions within the traffic district in which the rates are in effect are identical with, or similar to the traffic conditions in the State of North Dakota. Any objection to the authentication of the schedules, or any objection based upon the ground that authenticated copies of the tariffs from which these figures

are taken, have not been produced, is waived, it being understood that the railway company shall exhibit to the state, whenever called upon so to do, the tariff from which these figures are taken.

EXAMINATION

By Mr. Donnelly:

Q. These figures are taken from tariffs now in effect? A. Yes, sir.

Mr. Donnelly: Lest there be any mistake as to the introduction in evidence of N. P. Exhibits 1 to 24, inclusive, if I have not already offered them in evidence they are now offered in evidence.

At this time the hearing adjourned, to be resumed at the convenience of the parties, at some time in the future.

(Title of Court and Cause.)

The above entitled cause coming on for the purpose of taking testimony on the part of the several defendants, in the General Offices of the Northern Pacific Railway Company, in the City of St. Paul, State of Minnesota, on the 21st day of May, A. D. 1912, and for the purpose of taking testimony on behalf of the plaintiff, the following stipulation, already entered into with respect to the hearings held heretofore in the above entitled case, was renewed and continued:

Now, on this 21st day of May, A. D. 1912, the above entitled cases coming on for the purpose of taking testimony pursuant to the several stipulations heretofore entered into by and between the plaintiffs, for the State, and the defendants, and in pursuance of the order of the Court heretofore made and entered, An-

drew Miller, Attorney General of the State of North Dakota, and C. L. Young, Assistant Attorney General of said State of North Dakota, appearing on behalf of the plaintiff, and Chas. Donnelly, appearing for the Northern Pacific Railway Company, J. D. Armstrong, appearing on behalf of the Great Northern Railway Company, and John I. Dille, appearing on behalf of the Minneapolis, St. Paul & Sault Ste. Marie Railway Company, the Referee heretofore appointed by the Honorable Supreme Court of the State of North Dakota not being able to be present, it is hereby stipulated by and between the representatives of the state and counsel for the several defendants, that, for the purpose of taking this testimony, F. J. Gehan, a Notary Public in and for the County of Ramsey, State of Minnesota, shall act as notary public to swear the several witnesses, and all the evidence taken upon this hearing shall have the same force and effect, and shall be used upon the trial of this cause with the same force and effect as though it had been taken before the Referee hereinbefore named.

It is agreed that the testimony may be taken in shorthand by I. Mark Oseth, of Bismarck, North Dakota, and transcribed.

The recalling of the witness and the signatures attached to the several depositions herein taken is hereby waived, and said evidence so taken shall be read with the same force and effect as though it had been subscribed and sworn to in the form of a deposition. The testimony taken in each action shall be considered to be taken in all actions, and may be read in all so far as applicable thereto.

The following proceedings were then had:

WILLIAM G. JOHNSON,

having been heretofore duly sworn, was recalled as a witness on behalf of the defendants, and testified as follows:

CROSS-EXAMINATION.

By Mr. Miller:

Q. Referring, Mr. Johnson, to Northern Pacific Exhibit No. 22. A. Yes, sir.

Q. Turning to Sheet 2. I desire to inquire whether your application of the factor of twenty to one, used by you in connection with the carloads and L. C. L. freight in order to equalize them on your Exhibit No. 22, was derived from the same series of experiments or tests that your comptroller, Mr. Gray, used in his somewhat similar analysis of intrastate freight in the Minnesota Rate Case? A. Now, it was made entirely independently of anything Mr. Gray ever testified to in any case. You are speaking now, of course, of station service, as I understand it.

Q. I am speaking of the application of the factor. A. Yes, to station service.

Q. Yes, the result of your figures in Exhibit No. 22 is independent of the methods used by Mr. Gray? A. Yes. What Mr. Gray testified to applied to large terminals, like St. Paul, Minneapolis and Duluth, and not to interior stations like the stations in North Dakota.

Q. Have you your figures? A. My figures?

Q. Yes. A. I do not exactly understand what you mean by that.

Q. The source of the information? A. The source of the information comes from the regular statements

that the company makes every month, showing the cost of station service on the line, and, as I said before, is an assumed figure based on data gathered from a long time of experience in handling those figures, and represents the relation of cost as near as can be arrived at.

Q. Your figures are similar to Mr. Gray's, are they, and did they lead you to the same conclusion as the conclusion of Mr. Gray in the Minnesota Rate Case? A. I do not really remember what conclusion Mr. Gray reached in the Minnesota Rate Case. Without having Mr. Gray's testimony before me, it would be hard for me to answer that question.

Q. Can you give me more particularly your methods used, and figures and data supporting them? A. (Referring to paper.) Well, as I previously stated, it was based on the information that I gathered in handling statements that we make every month covering the cost of station service. From these statements I figured out it cost twenty times as much to handle a ton of L. C. L. freight than a ton of carload freight at these interior stations.

Q. What service, Mr. Johnson, was considered when you made up the cost of this station service? A. Purely station service. The employes at stations. It had nothing whatever to do with yard service.

Q. Will you name the pure station service expenses? A. Station agents, clerks, station laborers, if any, employes in the common service of freight and passenger business of which there are a great many at stations in North Dakota where the conditions are absolutely different from what they are at St. Paul and Minneapolis where the terminals are confined to the exclusive handling of freight.

Q. What percentage was charged for freight handlers to carload lots? A. No particular percentage. The whole thing was considered as one. All the stations expenses applicable to the freight business in North Dakota were figured, and the average cost per ton for all stations in North Dakota was figured.

Q. Applying it in that way, did you arrive at the factor of twenty-to-one by a system of figures, or was it an arbitrary factor? A. It was somewhat arbitrary, but based on experience in making the figures covering the cost of station service. And I may add that that same factor is used by us in contracts, in which a similar class of expense is involved, between two companies.

Q. I desire to inquire more particularly whether this experience that you mention is based on any series of figures, or whether it is mostly an arbitrary one. A. It is based on a series of figures taken from statements of the cost of station service made by the Northern Pacific every month.

Q. Have you those figures on which this conclusion is based, so that you can read them into the record? A. We have them on file up stairs.

Q. I wish you would read into the record the figures on which you based your testimony and conclusion. A. I believe that I am correct when I say that on direct examination I gave all the figures upon which this calculation was based—the number of tons handled, carload, separated from less than carload, and the total expense, and by using this factor of twenty to one, I produced the cost charged up to the lignite coal business.

Q. I understand, Mr. Johnson, that in your testimony you say that you figured it out on the basis of

twenty to one, but what I would like to get into the record is the actual figures you used in arriving at that calculation—that basis. A. Well, I can say this in answer to that question, that having the record of the cost of handling less than carload business, that is, freight physically handled, it was an easy matter to use that figure in building up this relation of twenty to one.

Q. Yes, no doubt that was an easy matter for you to do, but it is important from our standpoint in this case to have in the record the actual figures that you used, and if you had them at the time you made the computation, you must have them yet. A. I did have them, but I can not place my finger on them right now. If you will give me a few minutes I will try and figure this out for you. (Figures on piece of paper.) Taking my exhibit which shows the cost per car for the carload business, 47.4 cents, and dividing that amount by the average load of 19¼ tons, produces a cost per ton of 2.46 cents per ton. Taking the car of L. C. L. freight loaded with the same amount of freight, that is, 19¼ tons, and taking the cost of fifty cents per ton for handling warehouse freight, which is a safe and proper figure as demonstrated by our cost statements, and you produce 9.62 dollars. If you take 19¼ tons and multiply it by twenty, you have 395 tons, equated tons. If you multiply that, again, by 2.46 cents, it produces 9.71 dollars, the difference being practically only nine cents between figuring the one car at 47.4 and figuring the same car of L. C. L. freight on the basis of fifty cents, per ton for the warehouse expenses.

Q. What expenses, Mr. Johnson, are included in that fifty cents a ton? A. The fifty cents per ton includes freighthouse labor, checkers and making the

way-bills, and, in fact, every expense of station service in connection with L. C. L. freight.

Q. Where do you derive that from? A. From our statements made every month for the whole road, which show the cost of handling.

Q. Is that for the North Dakota business? A. North Dakota business, yes, sir.

Q. Is that in less than carload lots? A. That is the cost of warehouse freight.

Q. Now, in arriving at that fifty cents per ton, can you tell me what percentage you charge to agents' services? A. All the office expense is put together and is called office expense, and divided by the number of consignments waybilled in the month, and includes clerical work, collecting charges, making way-bills, expenses, etc.

Q. In arriving at your figures can you now tell me what percentage of the fifty cents was charged to those agents' expenses? A. Per ton?

Q. Yes. A. I can not tell you off hand.

Q. Did you charge the agent's labor at first class stations against L. C. L. freight at twenty to one? Whether in this fifty cents per ton charge, you figured agents' labor at first class stations on L. C. L. freight at the ratio of twenty to one? A. Well, I have just said that as far as the agent's salary is concerned, that is all put into the body with the salaries of clerks, and that is divided up by the number of consignments handled at the station for a month, reaching a cost per consignment, and that is considered in getting at this factor of fifty cents per ton for less than carload business.

Q. I will ask you if in your exhibit you charged agent's salary against L. C. L. freight at the ratio of

twenty to one. In your exhibit? A. No, I don't believe that you have the method—that you have followed the method as outlined in that exhibit of mine. It shows that I first found out how many tons of less than carload freight was handled at stations in North Dakota, and how many tons of carload freight were handled at stations in North Dakota. Then, using my factor of twenty to one, and building up the equated tons and reducing that to cars, I found out what the cost was per car, based on the actual station expense in the state of North Dakota.

By Mr. Donnelly:

Q. Before going any further. In a previous answer you spoke of this fifty cents per ton for carload freight. You meant Less than Car Load, or L. C. L. freight, didn't you? A. Yes, sir. Less than carload.

By Mr. Miller:

Q. You did arrive at a basis of twenty to one. That is the result you have figured? A. Yes, sir.

Q. And in your opinion is that the proper basis and relation for agents' services? A. For agents and all station labor. I did not pick out the station agents separately. All station service in North Dakota.

Q. Do they all bear the same relation?—station agents, freight handlers, clerks, checkers and other employes? A. No, sir. Not in arriving at the factor of fifty cents per ton for warehouse freight.

Q. The question is whether or not, in your opinion, the ratio of twenty to one was a proper one in respect to the service of station agents? A. That is a pretty hard question to answer. It is pretty hard to answer when you speak of all station agents in North Dakota.

Q. In less than carload lots. A. It would be a very

hard question to answer, in respect to either carload or less than carload freight.

Q. Taking the station agents as a whole instead of any specific instance? A. Well, of course that would depend upon how much work the station agent was devoting to handling freight, himself. He might be hustling freight, himself, or do all the work at the station. It would be impossible to tell how much of his time was devoted to handling freight. You must assume some figure—not entirely an arbitrary figure, but a figure gained from experience and taking the state as a whole—all stations as a whole in the state of North Dakota.

Q. That is what I mean too. You still haven't answered the question whether in your judgment the twenty to one is a proper basis between station agents' service and this factor of twenty to one. A. It may be at some stations and it may be at others. I have already said that in order to get at this relative cost of handling less than carload, as compared with carload business, we have the cost of physically handling freight in the warehouse, and take all the office force including the station agent, and divide it up on the basis of the number of consignments forwarded and received.

Q. In your computation and division of the consignments forwarded and received, did you count your carloads forwarded as a unit? A. Each carload was assumed to be one consignment.

Q. And were your freight handlers included in your division in respect to such cars? A. No, sir. Not directly, no.

Q. Were they divided at the ratio of twenty to one, or any other ratio? A. No, sir, because the fifty

cents per ton that I used in building up the ratio of twenty to one applied to warehouse labor to the less than carload business.

Q. Well, now, getting back to that fifty cents per ton again; it is the basis and figures that go into that fifty cents per ton that I would get into the record, as distinguished from your experience. What part of the fifty cents per ton is based on figures, and what part is based on experience? A. All taken from the company's experience—not mine particularly, but from records made month in and month out.

Q. And those records you have? A. We have the records, yes, sir.

Q. But you haven't them here at this time, before you? A. No, sir.

Q. I will ask you if, later, before the closing of the examination, you will furnish those figures, and read them into the record? A. Yes, sir, I will be glad to do it.

Q. Now, referring to Northern Pacific Exhibit No. 20, Mr. Johnson. A. Yes, sir.

Q. I desire to ask, with reference to this Exhibit No. 20, you to explain how you obtained the tons on each class of trains. A. Obtained from the wheel report.

Q. Did you include the mixed trains in computing, for instance, your 404 tons on branch line trains? A. Yes, sir.

Q. Will you give me the freight train miles on branch line regular trains? A. What do you mean by branch line regular trains?

Q. Not mixed trains. A. I can not tell you that off hand, no, sir. The fact is that the coal is handled in the first train that goes out, whether it is a mixed

train or regular freight train. Furthermore, nearly all the branch line service in winter is mixed service.

Q. Can you furnish for us, for the two months taken in as shown by your exhibit, the freight train miles on branch line trains, both regular and mixed? A. We have it in the records, but I could not give it to you right here. It may take some time to dig it out. In fact I believe that we furnished Mr. Hillman with that data already. I may be wrong about that, but I think we furnished it for the year.

Q. To save the trouble of getting those figures, can you tell us how much of the mixed train mileage is considered a freight proposition? A. How much of the mixed train?

Q. Yes. A. Under the Interstate Commerce Commission Rule, seventy-five per cent is considered as applying to the freight business, notwithstanding that the freight train may have only one passenger car and twenty-five freight cars.

Q. Is that the latest ruling of the Interstate Commerce Commission? A. As far as I know, yes, sir. And I want to emphasize the fact that the Interstate Commerce Commission rule of seventy-five per cent to freight and twenty-five per cent to passenger, very probably charges—very probably undercharges freight expense. It does not charge enough to it.

Q. Can you tell me, off hand, where the rule can be found? A. I believe it can be found in one of the annual reports of the Commission.

Q. Do you know in what one? A. I would have to look that up. I would not say off hand.

Q. I will ask you whether the 72,143 miles shown on your Exhibit No. 20, under branch line freight, is the regular freight trains miles, plus three-fourths

of the mixed train? A. No, sir. It is the full train mileage, of both the straight freight train and the mixed trains, and the gross ton miles are the gross ton miles of the whole train regardless of whether it is passenger, any part of it, or not.

Q. If that is true, I will ask you to file your figures showing that mileage for the year, by months. A. I may be wrong in my last answer, but it is my belief, now, that my answer is correct. I want to say this, that when this information was gathered it was gathered by the traveling auditor, and my instructions were that I wanted the full train mileage.

Q. You will go over those figures and ascertain whether or not the figures do include the full train miles or three-fourths of the mixed train miles, and correct them if not correct? A. Yes, I will undertake to verify the correctness of these figures as regards the branch line freight column.

Q. Would it be convenient for you to verify the figures and bring them with you so that we may compare them? A. I may have to send out on the line for this information.

Q. In that case, furnish me a copy. A. Yes, sir, I will undertake to furnish you a copy of the figures.

Q. I would take it from your answer stating that you had adopted the Interstate Commerce rule, that that twenty-five per cent mixed charged to passenger did not quite meet with your own judgment as to being entirely correct. Now, would you say it to be more accurate if you should divide the train costs on the car miles each made? A. No, I do not think you would get any closer to it, because you can not put a passenger car mile on the basis of the freight car mile. Furthermore, the carloading, whether empty or light,

and the tonnage contained in the car, would cut some figure in the cost of train performance, especially as applied to fuel.

Q. Would you think, then, that it ought to be divided on the relative weight of the freight and passenger car gross weights? A. I have not any decided opinion on that, but I think that the factor of seventy-five per cent and twenty-five per cent is, for all practical purposes, about as close as you can come to it. It may be wrong one time and right the next time.

Q. What is it close to, more particularly? A. To the value of the service performed.

Q. Well, would you distinguish between value of the service performed and the cost? A. Well, the cost of the service. Put it that way.

Q. Can you give me the car miles which freight and passenger made on mixed trains? A. I can not give it to you now, no, sir, and I doubt whether our records have that information in them. It is not computed for our own purposes.

Q. You do not think you could get that even from your records? A. It may take several months to get the figures for that. It would have to be worked up.

Q. That would be too long. We could not take the time. Now, referring to your Exhibit No. 17. On that exhibit there appears to be about fourteen and a half months. When you applied the factors derived from the fourteen and one-half months on Exhibit No. 17, you applied it to the year's business, did you not? A. Yes, sir, on the ground that in my judgment it was fair to take the whole period from the time the rates went into effect, clear down to June 30, 1911.

Q. On that basis would it not have been fair to

take the expenses for the same period? A. It might have been, but it was impracticable to do so, because the rate was put into effect in the middle of a month. I think it was stated in my direct examination that that fact was the reason why the expenses for the full period shown by this statement were not used.

Q. Did you use the tonnages and the expenses, etc., for the fiscal year ending June 30, 1911? A. Yes, sir.

Q. I notice that your exhibit shows the number of cars used for the whole fiscal year ending June 30, 1911. Why did you use the fifteen months basis when you had before you the exact twelve months figures corresponding to the twelve months expenses that you used? A. Because I thought it would be fair to take the whole experience as far as we could get it whether it was for or against us.

Q. How do you then explain that you did not take your expenses? A. Because, as heretofore stated, we do not divide our expenses in the middle of a month, and it could not be done. The rates went into effect on April 10th.

Q. You have here three months—April, May and June. Why did you not just cut off the month of April?

A. Because I considered that a fiscal year would be more typical of the fair expenses chargeable to this business or any other business than to take an odd fifteen months, or sixteen months, particularly in view of the fact that if I had followed your idea, we would have charged more expenses in the state of North Dakota, and the cost would have been higher, because in the months of April, May and June all our heavy

maintenance work is done. The cost per unit would be higher.

Q. Do you consider the fiscal year the proper unit for determining the expenses? A. I do, most assuredly, for the reasons that I have stated.

Q. Can you explain, then, if the fiscal year is the proper unit, why you found it convenient to use fifteen months on your Exhibit No. 17? A. I have already answered that question by stating that I wanted to get the longest experience in connection with this empty car movement.

Q. You consider that fair, do you, Mr. Johnson? A. Yes, sir, I do.

Q. And the reason why you did not use those same three months expenses was, as I understand it, because you did not have the expenses for those three months? A. We had the expenses for the three months, but not for the twenty days of April. If we had included the expenses for the months of April, May and June, we would have had very heavy charges on account of the spring maintenance work, and it would have increased the cost of this coal business, and, in my judgment, would not have been fair. So I confined the expense to the fiscal year ending June 30, 1911.

Q. Referring again to Exhibit No. 20. You have used on Exhibit 20 the gross train load. That includes, does it not, the weight of the car as well as the loading? A. Yes, the weight of the car and contents.

Q. Now, if you increase the live loading per car, you decrease the cost per live ton mile, provided that the weight of the car remains constant, do you not? A. That is an indisputable fact, the other conditions being equal.

Q. Now, in your more modern equipment, is it not true that the capacity of the car increases more rapidly than the dead weight? A. That may be true. I can not say definitely.

Q. Assuming that is true, an increase of loading capacity would, in case of heavier equipment being used, also increase the ratio of live load to dead, and decrease the cost per ton? A. If the relation between the weight of the load and the weight of the car decreased as the capacity of the car increased, naturally it would cause changes in the cost per live ton per mile to haul the contents of the car, everything else being equal, but in preparing these figures it was impracticable for me to follow every car. The business was handled just as the car could be furnished without respect to capacity or any other figures, and I think—I have no reason to believe that there was discrimination in furnishing these cars.

Q. Now, referring to Exhibit No. 17. Where you give your local car miles, the car miles for the year ending June 30, 1911, are 346,201 for lignite coal, are they not? A. Yes.

Q. The ton miles on lignite coal shown on Exhibit No. 24 are 9,380,678, are they not? A. Yes, sir.

Q. Would that not give you an average loading for each car of lignite coal of 27.096 tons, or approximately 27.1 tons? A. Practically 27.1 tons, yes sir.

Q. Referring, now, back again to Exhibit No. 22, sheet No. 1, what figure did you use there? A. 26.87 tons.

Q. Now, in making the division of expenses between freight and passenger, you locate directly on your books quite a large amount of your expenses? A. Yes, sir.

Q. And the expenses not located directly are generally divided on the revenue train mile basis, is that correct? A. Revenue engine mile basis, including switching. Not revenue train mile basis.

Q. Do you think this combination is a better factor for division than the earnings basis? A. Yes, sir.

Q. Now, referring again to Exhibit No. 20, Mr. Johnson, when you furnish us the details of your branch line train miles of 72.143, will you also furnish us the details for your item of 404 average gross tons train load? A. Yes, sir, I will be glad to do so.

Mr. Miller: I think that is all, Mr. Johnson.

The hearing was here adjourned until 10:00 A. M. on the following day, May 22nd.

WILLIAM G. JOHNSON,

a witness on behalf of the several defendants, having been heretofore duly sworn, was recalled, and testified as follows:

RE-DIRECT EXAMINATION.

By Mr. Donnelly:

Q. Go ahead, Mr. Johnson, and state what you have to say on the mixed train business. A. I find that the branch line freight train mileage, 72,143, shown under the head of branch line. in Exhibit No. 20, includes the seventy-five per cent of the mixed train mileage; that the gross ton miles used as a factor to arrive at the gross average load per train, was the gross ton miles of the freight business only, and, further, that, as to the expense used, they represent seventy-five per cent of the mixed train service.

Q. There was a question raised as to why you took

that seventy-five per cent. A. As regards the factors of seventy-five per cent freight and twenty-five per cent passenger, applied to mixed train mileage, I find that I was in error in stating that that is a rule of the Interstate Commerce Commission. It was formerly a rule of the commission, but on or about July 1, 1907, the commission changed its former report by making us show the mixed train mileage as applied to both the freight and passenger business, but they never used it for any factor that I know of.

Q. So that if you were to literally have observed the Commission's formula, you would have taken one hundred per cent? A. Yes, which would have been erroneous, because I only used seventy-five per cent of the mixed train expenses.

Q. If you had taken one hundred per cent both of the mileage and of the expenses it would have yielded a result more favorable to the carriers' contention in this case? A. Yes, sir.

Q. What have you to say as to the fairness of taking seventy-five per cent? A. I think it is a fair proposition.

Q. And that fairly represents the proportion of the freight expenses to the whole? A. In round figures, yes.

Q. On that same exhibit No. 20, you show, in addition to showing the branch line freight train mileage, you show the average gross train load in tons of branch line freight as 404. Will you explain how you reached that figure?

Q. Using the net ton mileage and adding thereto the car mileage at the rate of sixteen tons per car, we produced 29,117,608 gross ton miles, which, divided

by the train mileage of 72,143, produces an average gross train load of 404 tons.

Q. You may take up Exhibit No. 17, Mr. Johnson, and say whatever you have to say in explanation of that. A. The question was raised yesterday as to the effect of cutting out the loaded car mileage and the empty car mileage shown on the exhibit for the months of April, May and June, 1910. By so doing the percentage of empty car miles to loaded car miles shown at the bottom of the statement as 72.23 per cent would be changed to 71.42 per cent. Carrying that changed percentage to Exhibit N. P. No. 22, on sheet One of the Exhibit, first calculation, would result in producing, for the lignite coal business a factor of 202 gross ton miles to produce one hundred revenue ton miles of all business, and would not affect the results as to the cost of the business.

Q. It would make a difference of only .6 of one per cent? A. Yes, sir.

Q. Did you make any figures to show what difference would be made in the percentages of loaded car miles in local trains, in through trains, and in branch trains, as shown on your exhibit No. 17? A. No, sir.

Q. You did not cover that? A. No, sir.

Q. Would it materially affect those percentages? A. No, sir.

Q. The purpose of this Exhibit No. 17, as I understand it, is not to show the absolute figures as much as to show the relation? A. The relation, yes, sir.

Q. Now, what have you to say with regard to the proposition of twenty to one as the expense of L. C. L. station expenses, as compared with carload station service? A. As stated by me yesterday, I have misplaced the original memorandum I had made, on which

part of the exhibit pertaining to station service was based, but I have re-worked the figures, and I submit herewith an additional statement.

(Paper produced and marked "N. P. Ex. No. 43," for identification, by the reporter.)

Q. Go ahead, then and explain your basis of arriving at that conclusion. A. I want to say that yesterday I referred to the cost of fifty cents per ton. That is explained by the fact that the average cost for warehouse expenses shown on this new exhibit No. 43, was about twenty-three cents, or, in other words, very close to twenty-five cents, and that amount multiplied by two produced the fifty cents which I had in mind yesterday. Now, this exhibit shows that at Fargo, and Jamestown, for the year ending June 30, 1911, it cost 22.66 cents per ton for warehouse expenses on L. C. L. freight. Taking the total station service as per N. P. Exhibit No. 22, and deducting therefrom the warehouse cost of two times 4,410 tons, at 22.66 cents, leaves the other station expense amounting to $129,134.24. The question now is the proper method under which to distribute this to the L. C. L. business and the carload business. Based on experience, I think I am correct in stating that every ton of warehouse freight cost, for such expense, about the same amount as it does per car for carload business, so the less than carload freight is equated by multiplying it by twenty.

Q. And why twenty? The average load of the car being shown to be about twenty tons? A. That is correct, yes, sir, the average load being about twenty tons. The carload freight is left standing at the actual tons handled. In this way we produce 6,876,353 equated tons, and dividing that into the expense aside from the warehouse expense, of $129,134.24, the cost

per equated ton of 1.878 cents is arrived at. The average carload of lignite coal was within a fraction of twenty-seven tons. Twenty-seven tons at 1.878 cents, produces 50.7 cents per car. Now, the question may be raised as to whether the lignite coal average load of twenty-seven tons is greater than the average load of all other carload business. I have tested that out and I find that the average for all carload business is slightly in excess of twenty-seven tons. It is therefore not unfair to take the lignite coal on the basis of its actual average carload, and apply it to the cost per ton as shown by the exhibit. On Exhibit N. P. No. 22, the cost charged to the lignite coal per ton was 47.4 cents, but I find upon examination that there was an error in the calculation. The correct rate in the exhibit should have been stated at 51.4 cents per car. Therefore, the defendant's Exhibit N. P. No. 43 which I now offer, practically substantiates what should have been the correct figure in N. P. Exhibit No. 22.

Q. Showing that the amount actually charged for station service in Exhibit No. 22 is less in fact than it should have been? A. Yes, sir, slightly less than it should have been.

Mr. Donnelly: That is all.

RE-CROSS-EXAMINATION.

By Mr. Young:

Q. I notice, Mr. Johnson, that wherever you have had occasion to use the factor of ton mileage, you have used the gross ton mileage for expenses. A. Not altogether. No. As applied to the train expenses, the haulage expenses.

Q. In the movement expenses? A. Yes, sir.

Q. Why have you used the gross ton miles? A. Because I considered it the nearest factor when dealing with a commodity that may be loaded at higher load per car than the average business of the company—in the interest of soundness, as near as we can get at it.

Mr. Young: That is all.

HOWARD ELLIOTT,

called as a witness on behalf of the defendants, was duly sworn, and testified as follows:

DIRECT EXAMINATION.

By Mr. Donnelly:

Q. Mr. Elliott, you are president of the Northern Pacific Railway Company, are you? A. Yes, sir.

Q. You testified on the previous hearing in this case? A. I did.

Q. You are familiar with the circumstances under which the lignite coal is moved in North Dakota? A. Yes, sir.

Q. Does any of that coal move over the line of the Northern Pacific Railway Company in North Dakota, in train load lots? A. Very rarely. I looked through a set of statements this morning. and I think in about fourteen months there were only two cases where, at one time, there were enough shipments at any one place to approximate a train load—two cases from Lehigh to Dickinson, I think, about five or seven miles. There was not a full train, but only an approximate train load, in that whole period.

Q. When does the lignite coal move for the most part in that state? A. It begins in the latter part of

September, and moves in October, November, December. January, February and March. The heavy movements are in these months.

Q. During the other months it is comparatively light? A. Comparatively very light, yes, sir.

Q. Are there any reasons why it is especially difficult to move that commodity during that season? A. Well, beginning in September, and from this month on, is the time when the general business in this northwestern country is about at its highest. The grain is moving, and the people are feeling more prosperous, and are buying things. Our cars and equipment, and facilities are generally carrying what the electrical engineers call the "peak load"; so that we try, at this time, to use our facilities in such a way as to make the greatest possible return out of the use of those facilities, and taking all the short-haul lignite coal business at such a time, has the disadvantage to the company of crippling its capacity to do more desirable business, not only in North Dakota, but in other states where the Northern Pacific, as a whole, is obliged to serve.

Q. Is there anything in the climatic conditions? A. Oh, yes, it is obvious that when the mercury begins to drop from freezing down to thirty or forty degrees below, it is more difficult to transport business, both freight and passenger, than during the months from the first of April to the first of October. The tractive force of a locomotive during the extreme cold weather is cut sometimes as much as fifty per cent. Engines will sometimes haul only one-half as much in November as in July. The carriage of freight during the winter months is a greater physical and financial burden than in the good weather months.

Q. You are familiar in a general way, I assume from your railroad experience, with the operating conditions in the states of Iowa, Illinois, Nebraska and South Dakota? A. Before I came to the Northern Pacific, I worked on the C. B. & Q. for about twenty-two years. During that time I had experience in Missouri, Illinois, Iowa, and two years general supervision in Nebraska, and I know in a general way about the operating conditions in these states, and especially in Missouri and Iowa, and the Illinois conditions are, if anything, a little easier than they are in Missouri and Iowa.

Q. How do they contrast with those that are encountered on the line of the Northern Pacific in North Dakota? A. The operating conditions in these states are, on the whole, more satisfactory and easier than they are in those states farther north. They have a cheaper grade of fuel. They have, on the whole, a better climatic condition, so that living conditions for railway employees are more satisfactory. That has a tendency to affect the wages somewhat. They do not have the extreme cold weather that we have in this northern tier of states, so that the operation in the winter is very much more easy than they are up here. It is easier to get the effective use of the machinery of the railroad in Missouri and Iowa and Illinois than it is in North Dakota, if you take the whole twelve months of the year into account.

Q. You were present, were you, when Mr. Pennington testified the other day? A. Yes, sir.

Q. You heard his testimony? A. Yes, sir.

Q. Will you state the circumstances attending the entrance of the Northern Pacific Railway into Wilton? A. A few years ago the management of the

Northern Pacific thought it would be a wise thing to do to occupy that section of the country lying between its main line running from J[illegible]stown to Bismarck and existing branch line running from Carrington west towards Turtle Lake. There was quite an area that was not productive, but an examination of the country led the management to think that, at some time, that area would be occupied by an agricultural population, and would raise grain, and indulge in the usual activities of an agricultural community. It was therefore decided to build a railroad from Pingree westward. They decided to carry it as far as Wilton for several reasons. The engine run from Jamestown, where the engine would have to start, north to Pingree, and then from Pingree west to Wilton would be about one hundred and eleven miles, making a very suitable day's work for a train crew. Another reason was that the western part of the territory in some respects showed a little better soil conditions than the extreme eastern part, and if the road went out there it seemed desirable to try to tap the maximum amount of country. The company believed that in time, as the state grew, it would be desirable to try to make some friendly arrangement with the Soo Road, so that there would be a general circulation and a joint train could be run, starting from Jamestown, Pingree, Wilton, to Bismarck, so there would be a general circulation of people, and the Bismarck merchants would trade out in that country. So that after considering it all, we decided to go in as far as Wilton. Having decided to do that, it seemed in the interest of providing the present population with a convenient source of fuel supply, that we ought to offer them the advantages, so far as there would

be any advantages, of getting their coal from Wilton as well as from the head of the Lakes. Not that we thought or believed the hauling of that coal from Wilton was a remunerative class of business, for us, but whatever was good for the settlement we hoped in the long run would be good for us. We also hoped that in the long run these rate questions would be settled on such a basis that we would make a little money out of the Wilton coal that might be hauled eastwardly. From a purely financial standpoint, it would be much better for us to haul the fuel from Duluth and Superior to the settlements on the Pingree-Wilton line than to haul a like quantity of fuel from Wilton back into that country, because our grain moves in to Duluth and Superior, generally, in the autumn months, and we could move those empty cars from Duluth and Superior west and get them back into Duluth and Superior under load, and in that way get more money. Looking at it from the standpoint of handling fuel, it would be better for us. We felt that we should not attempt to exclude any settlers living on the line from the opportunity to buy coal at Wilton, if they wanted it. That question having been decided in our minds, the question then arose as to how we should participate in the business, and mine owners were very anxious to have us go in there, and it was suggested at one time that the Northern Pacific build the tracks to the mines. I told our engineers that that was a mistake; that business was poor, and we would better try and make some arrangements with the Soo Road. The Soo people said they would be willing to sell an undivided interest in the tracks, and named a very favorable price. We never have accepted their proposition, and

about ten days or two weeks ago, the matter was under discussion, and we said at that time that on account of the character of this business, that instead of buying into these tracks, it would be better to take up with the proper officers of the Soo the question of their switching in coal for the Northern Pacific to some common track, and letting the man who buys coal pay the switching rate plus the haulage rate on the Northern Pacific. Mr. Pennington was perfectly sincere in his testimony in which he spoke as if that contract had been consummated, because the matter was taken up in the usual way asking for a definite proposition as to price, and what kind of a trade we could make, and, the Soo after making their figures, came back, but the Northern Pacific has never accepted that proposition, and is yet quite doubtful as to what is best for it to do. It may be best for it to buy into these coal tracks. Not that it thinks it can make any money directly out of the coal business, but simply to give satisfactory service to the public in moving that class of fuel into this newly opened territory.

Mr. Young: The plaintiff moves to strike out the last answer of Mr. Elliott on the ground that it is irrelevant and immaterial.

Q. So that notwithstanding the proposition made by the Soo, or by Mr. Pennington for the Soo, the Northern Pacific has not felt as yet that it could accept it?

Mr. Young: The plaintiff objects to the question on the same grounds as last above.

A. It has not accepted it up to the present time. It is under investigation now.

Q. Mr. Elliott, in regard to the repair of equip-

ment, and the service that makes repairs necessary, does a short haul or a long haul, on the whole, involve more wear and tear on the equipment, mile for mile? A. The short haul would involve more wear mile for mile, because there are three things entering into the wear and tear of your car. One is the switching and terminal work at the initial point; second, the hauling it over the main line; third, switching or terminal work at the point of destination. If you have a short haul, it is obvious that you get your switching and terminal service wear spread over a much shorter mileage, and it is an unfortunate fact that switching and terminal service is a great strain on our cars. There is a great deal of damage done in switching cars. Switchmen are only human, and, while railroads try to get them to be careful, there is generally damage done every time a car is switched.

Q. How many switching movements are involved in the delivery of the car at the terminals? A. You have got to take that car out of the train when it gets to the terminal. That is one. It has to be set out on some track, which, at the minimum, would involve one more movement. That is two movements. We have to bring the empty car away from the industry track or team track to, possibly, an assembling track. That is three. Sooner or later you would have to set it into some other train. There would be a minimum of four movements. There might be more than that.

Q. In your judgment as a railroad man, does the rate per ton per mile yielded by the rates now under consideration, as shown by the exhibits, yield any net revenue to the Northern Pacific in excess of the cost? A. In considering the general conditions in

North Dakota under which we have to operate, and everything concerning the management of the business in that state, I have never thought that the lignite business was remunerative in any direct way. The only way was the reason I gave before, that we hoped the rates would be advanced some day, and we therefore could afford to carry the business, even when it would be better if we did not have to put our cars and engines into that class of business.

Q. It was not from the thought that there would be any money in the movement of the coal from Wilton that you were induced into entering into the negotiations with the Soo in regard to the Wilton road? A. No, sir.

Mr. Donnelly: That is all.

CROSS EXAMINATION.

By Mr. Young:

Q. Can you state, Mr. Elliott, what it costs per ton to carry lignite coal? A. I can not, no. I would have to make some very careful calculations about that.

Q. Are you able to state what the revenue per ton per mile is for lignite coal? A. From such tariffs as I have examined, it runs, on the very short haul business, something under a cent a ton a mile, and on the aggregate business a little less than six mills per mile.

Q. You are speaking, now, of the lignite business? A. Yes, sir.

Q. The climatic conditions of which you speak apply as well to all other traffic as to lignite coal, does it not? A. Yes.

Q. You speak of operating conditions in other states. How do the grades of the roads in Illinois compare with the grades in North Dakota? A. Well, the grades of the roads of Illinois with which I am familiar are much less than the grades in North Dakota. A great deal of the coal in that country is hauled on less than three-tenths of one per cent grade.

Q. And how about the conditions in Missouri? A. A good deal of the coal is hauled on water-level lines. Much of the east and west coal is hauled on water-level lines. My recollection is that the Wabash has a grade of about five-tenths. The Hannibal & St. Joe Road is next, from Hannibal across to St. Joe. They have about a one per cent grade line.

Q. Do you know the cost of handling coal on the Illinois and Missouri roads under those conditions? A. I could not give you any actual cost figures without making very careful tabulations. I could only give you my general views, considering the general cost of railway companies as I have known it. It is easier for them to handle their coal in that country than it is for us to handle ours up here. It moves in much larger quantities.

Q. Is there any difference in wages between North Dakota and these other states of which you have spoken? A. The wages, I think, of our station men are a little higher in North Dakota than in states further south. I think the wages of some of our mechanical and track labor are a little higher. My impression is that the train and engine men wages are the same.

Q. Now, all these difficulties as increasing the operating expenses are really expressed in the total cost of doing business as shown by the tables introduced

here in behalf of the Northern Pacific Railway Company? A. They would be reflected in our expenses, yes, sir.

Q. When the expenses are properly distributed, all of this additional cost is taken care of in that distribution? A. I don't know what you mean by taking care of.

Q. They are accounted for and included in this total expense so that no additional allowance except what is made by the figures need to be made? A. I would have to see a statement and understand it before I would feel that I could answer that question correctly.

Q. When the expense of handling lignite coal is assigned to that business after the expense of doing all of your freight business is taken into consideration, there are no additional factors to be taken into consideration, are there? A. Well, if they are able to allot the expense to handling lignite coal to the lignite coal, it is obvious that there would be no additional factors.

Q. The extra cost is included in the statement? A. It presumably is included in the statement. I have not seen the statement, so I do not know.

Q. Are you able to give any figures showing the wear and tear, the cost for switching and terminal movements at the initial point? A. I could not give them, personally, no. I would have to go to our records and prepare them. I know in a general way, from the study I make of our result from month to month, that our terminal expense is very large.

Q. You would not be able to state, and do not know, definitely, what percentage of the total charge for repairs of cars is attributable to switching? A. I

could not without a very careful calculation.

Q. You would not make an estimate? A. No.

Q. The same is true of the percentage that is due to the haul of the car? A. I would not want to testify to that without going into it very carefully, myself.

Mr. Young: I think that is all.

RE-DIRECT EXAMINATION.

By Mr. Donnelly:

Q. It cost more to haul a carload from one point to another in the month of January than in the month of June, does it not? A. Yes, sir.

Q. No question about that? A. No, sir.

Q. Therefore, if you assign, as the cost of hauling the car in the month of January, the average cost for the whole year, it would be proper to say that as against that particular car there should be some additional charge made? A. I should think so. I suppose that when the gentleman asked me his question he was covering that question—that he took the month of January and allotted the expenses for that month to the January business, and so on.

Q. It is especially true of this coal movement—this lignite coal movement, that it is made during the cold months? A. Yes, sir.

Q. That is not so generally true of the movement of any other commodities in the state, is it? A. No, sir, I should say no.

Q. There has been in some of the exhibits computations made upon the basis of divisions of the Northern Pacific Railroad touching North Dakota. Are there any differences in the operating conditions of the divisions which touch North Dakota, entering

that state from Minnesota and Montana, than in the state of North Dakota itself? A. They are substantially the same. The wages are the same. The character of the equipment and the character of the coal are the same, and the grades of the main lines are substantially the same. On some of the branch lines the grades in North Dakota are harder than they are in the other states.

Mr. Donnelly: That is all.

Mr. Young: That is all.

The following stipulation was then entered into by and between the representatives of the State, and the counsel for the several defendants:

It is stipulated that these South Dakota rates, with which comparison is made in defendant's N. P. Exhibit No. 37, and which rates have been published under protest by the Great Northern Railway Company, have been enjoined as confiscatory by the court at the instance of the other carriers, and are not in effect on their lines in that state.

(Title of Court and Cause.)

The above entitled cause coming on for the purpose of taking testimony in the General Office of the Great Northern Railway Company, in the City of St. Paul, State of Minnesota, on the 4th day of April, A. D .1912, the following stipulation was entered into by and between the respective parties thereto:

Now, on this 4th day of April, A. D. 1912, the above entitled cases coming on for the purpose of taking testimony on the part of the several defendants, pursuant to the several stipulations heretofore entered into by and between the plaintiff, for the State, and the defendants, and in pursuance of the order of the court heretofore made and entered, Andrew Miller,

Attorney General of the State of North Dakota appearing on behalf of the plaintiff, Chas. Donnelly appearing for the Northern Pacific Railway Company, John I. Dille appearing on behalf of the Minneapolis, St. Paul & Ste. Marie Railway Company, and J. D. Armstrong appearing for the Great Northern Railway Company, the referee heretofore appointed by the Honorable Supreme Court of the State of North Dakota not being able to be present, it is hereby stipulated by and between the representatives of the state and counsel for the several defendants, that, for the purpose of taking this testimony, E. W. McElroy, a Notary Public in and for the County of Ramsey, State of Minnesota, shall act as a notary public to swear the several witnesses, and all the evidence taken upon this hearing shall have the same force and effect, and shall be used upon the trial of this cause with the same force and effect as though it had been taken before the referee hereinbefore named. It is agreed that the testimony may be taken in shorthand by I. Mark Oseth, of Bismarck, North Dakota, and transcribed.

The recalling of the witnesses and the signatures attached to the several depositions herein taken is hereby waived, and said evidence so taken shall be read with the same force and effect as though it had been subscribed and sworn to in the form of a deposition. The testimony taken in each action shall be considered to be taken in all actions, and may be read in all so far as applicable thereto.

The following proceedings were then had:

G. R. MARTIN,

called as a witness on behalf of the several defend-

ants, was duly sworn to tell the truth, the whole truth and nothing but the truth, and testified as follows:

DIRECT EXAMINATION.

By Mr. Armstrong:

Q. Mr. Martin, you reside in St. Paul? A. I live in Minneapolis.

Q. And occupy what position with the Great Northern Railway Company? A. A Comptroller of the Great Northern Railway in its general office at St. Paul.

Q. How long have you been connected with the Great Northern Railway Company? A. Twenty-two years.

Q. How long—you may state briefly in what capacities you have served the company. A. Possibly a little of my experience before that time might help out, if you want it.

Q. I will ask you to state all your railroad experience. A. I started out when I was fifteen years old as water-boy on a fence construction gang. I later worked as baggage-man, and warehouse-man at a station, brakeman on a passenger train, worked on the section, running a steam pump, these things while I was learning to telegraph. I then worked as telegraph operator and station agent. All this on the Northwestern Railroad. I went to the "Soo" line, and was there during construction; had charge of the material yard at the front during the heavy construction period in 1887. Was also station agent there, as train dispatcher and superintendent's chief clerk. In 1890 I came to the Great Northern, in the accounting department, as a disbursement clerk, and worked through

the various grades to chief clerk in the disbursements division. Assistant Auditor of Disbursements, and then went into the operating department on special work with superintendent's, for Mr. Hill. After that was General Superintendent of the Montana Central Railway, and when the Central District was created, covering the territory from the Red River to the Rocky Mountains, I was in charge of it with the title of Assistant General Superintendent, with the same authority that the present General Superintendents have.

Q. That was in what year? A. That was in 1898.

Q. How long did you remain as Assistant General Superintendent in charge of the Central District? A. I was on that particular territory during the reconstruction of the summer of 1898. I think probably not over six months that that was kept as a separate district at that time.

Q. That district included the state of North Dakota? A. Yes. It included all of the lines in North Dakota as they were constructed at that time. Then I came back to the general office and was Auditor of Disbursements until July, 1902, Auditor until Jan. 1, 1905, and about six months in the President's office on special work; Assistant Comptroller until June, 1911, and then Comptroller.

Q. During the times you were Assistant Comptroller and Comptroller, the records of the Great Northern Railway Company covering the amount of traffic were in your charge and under your control? A. Yes, sir.

Q. And they are at the present time? A. Yes, sir.

Q. You were a witness on the previous hearing in this North Dakota lignite coal matter? A. No, sir.

Q. You have knowledge, however, and had knowl-

edge of the pendency of the proceedings? A. Yes.

Q. When did the rates as prescribed by Chapter 51 of the Laws of 1907, of North Dakota, go into effect on the Great Northern Railroad? A. My records show April 11, 1910.

Q. And since that time your department has kept a record of the lignite coal traffic which moved in the state of North Dakota under the rates as prescribed by that law? A. Yes.

Q. I ask you if any other coal outside of lignite moves under those rates, or is your coal traffic in the state of North Dakota which moves under the rates in question confined to lignite coal? A. It is confined to lignite coal, unless possibly there might be a case of emergency when some one that had some coal at a North Dakota station might load it up and ship it to some other North Dakota station.

Q. Is the amount of coal other than lignite which moves under the rates prescribed by Chapter 51, negligible in quantity, or is it sufficiently large to make any difference in your computations based on the amount of coal? A. It is very small, indeed, if there is any of it.

Q. And would not, therefore, be a factor of any importance so far as affecting the results if it were combined with the lignite coal traffic for the purpose of making the computations as shown by the statements which you will furnish? A. It would not make any material difference.

Q. Now, the company has, since these rates, prescribed by Chapter 51, Laws of 1907, went into effect, kept a record of the movement of lignite coal between points in North Dakota, has it not? A. Yes.

Q. Showing the number of cars moved, the points

between which they moved, the rates received for the transportation, the length of the haul, and such other matters as may be factors in ascertaining the cost to this company of performing the service of handling that coal? A. Well, we have all that information for the year ending June 30, 1911, and there was some of it that you mention, as I recall it, that was kept specially, and for that special information we have the records only for the period that we kept it specially, but otherwise we have all of the information that you mention in our regular records.

Q. Then, for the year ending June 30, 1911, you have kept such records as will enable you to state the material facts relative to the transportation of lignite coal with particular reference to whether or not this company makes a profit on the transportation? A. Yes.

Q. These statements which you will offer in this proceeding, and which will be identified later, are all made up under your direction from the records of your office, to which you have referred? A. Yes.

Q. And show the situation as set forth in the records of this company? A. Yes, sir.

Q. Now, I call your attention to Great Northern Exhibit No. 1.

(Paper produced and marked Great Northern Exhibit 1, by the reporter.)

Q. Referring you to the statement marked Great Northern Exhibit No. 1, I ask you what that statement is? A. This Exhibit No. 1 is a statement showing the intrastate shipment of lignite coal in North Dakota for the year ending June 30, 1911, on the basis of the rates now in effect, as compared with the rates in effect prior to April 11th, 1910.

Q. The rates now in effect, which are prescribed by Chapter 51, Laws of 1907, are the same rates as we have designated as the rates under the North Dakota Code of 1907 in your statement? A. Yes, sir, that is what we called it.

Q. Now, referring to the first column. I find there the names of nine stations. You may tell what those stations are, whether they are points at which the traffic originates, that is, mining points, or points at which we receive traffic from connecting lines. A. The stations named are points at which the coal originates, at mines, on our lines, excepting Minot, Fargo or Casselton, where the coal comes in interchange with either the Soo Line or the Northern Pacific.

Q. Then with the exception of Minot, Fargo and Casselton, all stations named in the first column are mining stations on our own line? A. Yes, sir.

Q. What does the second column show, Mr. Martin? A. It gives the number of tons of lignite coal billed from each of the stations named.

Q. And the third column? A. The third column is divided into two parts, or the third and fourth columns come together as representing the ton mileage, showing the main line haul and the branch line haul from each station separately. I should have said that under ton mileage there are really three columns, because the main line and branch line are added together to make a total.

Q. And the sixth column shows what? A. The average haul in miles for the product from each of the billing stations named.

Q. And the seventh? A. The seventh is the revenue at the present rates which we have called North

Dakota Code of 1907, received from the coal billed from each of the stations named.

Q. And the eighth? A. The eighth is similar information showing what the revenue would have been on the basis of the rates in effect prior to April 11, 1910.

Q. That is, the rates which the law changed. A. Yes, sir.

Q. And the ninth? A. The ninth is the difference in revenue between the old rates and the new rates, shown for each station.

Q. And the tenth and the eleventh show the revenue per ton per mile under the present rates and the former rates? A. Yes.

Q. At the foot of the columns are shown the totals for each column? A. Yes, sir.

Q. And referring to the columns and in the totals as shown by this statement, Mr. Martin, I find that the average haul is sixty-three and two-tenths (63.2) miles. A. Yes, sir.

Q. The total revenue for the year ended June 30, 1911, on lignite coal is $17,756.52? A. Yes.

Q. The revenue which would have been realized under the old rates, $26,642.00, making a difference in revenue between the old rates and the rates prescribed by law of $8885.48? A. Yes, sir.

Q. And making a revenue per ton per mile under the present rate of seven and sixty-six hundredths of a mill (.00766)? A. Yes, sir.

Q. As against a revenue per ton mile of one cent, fourteen and nine-tenths mills (.01149)? A. Yes, sir.

Q. I wish you would explain exactly where the information came from upon which you made up this

statement. A. This statement was all made up, as far as basing the information is concerned, from the way-billing out of these various stations mentioned in the first column.

Q. Then, by taking the billing under which the coal actually moved from these points to the point of destination of the shipments? A. Yes, sir.

(Paper produced and marked G. N. Ex. 2, by the Reporter.)

Q. Now, calling your attention, Mr. Martin, to statement marked G. N. Ex. 2, I ask you to explain that statement. A. Exhibit No. 2 is a statement of operating expenses and taxes assignable to the state of North Dakota for the year ended June 30, 1911, using the general headings for accounts according to the Interstate Commerce classification, dividing the expenses for each general account between main lines and branch lines, showing the freight and passenger division for each, together with total freight and passenger, and the total for North Dakota.

Q. This statement purports to show the average cost per revenue ton mile, of transportation expense and other operating expenses and taxes? A. It shows all of the operating expenses and taxes for the state of North Dakota with the revenue ton miles and from those figures the computation is made to show the cost per revenue ton mile for handling freight on main lines and branch lines in North Dakota.

Q. You may state exactly how these figures were arrived at and the basis which you used in working them out. A. For the purpose of keeping our accounts as accurately as possible, the line is divided into what we call accounting divisions. Each branch line

is an accounting division by itself, and then the main line is divided into various accounting divisions, usually on the basis of a passenger train run, and so as to bring the accounting division limits to agree with the limits of an operating division under the jurisdiction of a division superintendent. Wherever these accounting divisions cross a state line, we subdivide it into as many heads as may be necessary so as to have a record of the expense of that line for each state as closely as we can get it under the methods I will later describe.

(Paper produced (blue print map) and marked G. N. Ex. 3 by the Reporter.)

Q. You may refer to the map marked Great Northern Exhibit 3. This map shows the line of the Great Northern Railway Company in Minnesota, North Dakota, South Dakota, Manitoba and Montana, does it not? A. Yes, sir.

Q. Now, you may continue by reference to that map. You were speaking of the accounting divisions and the methods of dividing them where they extend over a state boundary line. A. Beginning at the southerly boundary of North Dakota, the Aberdeen and Ellendale line is the first division. The line starts a few miles east of the Red River, crosses into North Dakota, and then has a branch line running into South Dakota, reaching to Aberdeen, so that in our subheads of that line we would have three divisions, one for Minnesota, one for North Dakota and one for South Dakota. Going north, the next accounting division is the Breckenridge main line, which includes, in Minnesota, only the terminal station of Breckenridge, the dividing line being the Red River. This line runs through Casselton and Aneta to Devils Lake

There will be two subheads under the Breckenridge main line, one for Minnesota and one for North Dakota. The next line is called the Halsted branch, running from Wahpeton through Moorhead to Crookston, and crosses the Red River about five miles north of Wahpeton, so that we have two subheads under that accounting division, one for North Dakota and one for Minnesota.

Q. There is no difficulty, of course, in obtaining the exact amount of your operating expenses and taxes where the accounting division lies wholly within the state of North Dakota? A. There is no difficulty with certain of the operating expenses, although there are certain operating expenses that are common to the whole line of railway, and an arbitrary apportionment has to be used in order to find the amount charged to one accounting division.

Q. Now, where the accounting division extends outside of the state of North Dakota, then arbitrary divisions must also be made of the operating expenses between North Dakota and the state of Minnesota, South Dakota, or the province of Manitoba, depending upon which the line extends into? A. For some expenses. Not for all, because there are a great many expenses that can be actually allocated to Minnesota and other states, and we make those actual allocations whenever we can, even where the accounting division crosses the boundary.

Q. The operating expenses and taxes included in Great Northern Exhibit No. 2 represent the actual allocation of expenses where it is possible to make an actual division of them? A. Yes, sir.

Q. Now, where the expenses are common to a portion of the accounting division in the state of North

Dakota, and a portion outside of the state, then under what system do you ascertain, or upon what basis do you ascertain the portion which should be charged to the state of North Dakota? A. The basis varies with the class of expense. We try to get the arbitrary division which will most nearly represent the actual facts.

Q. Now, the basis of course is the same as respects every accounting division which lies both in and outside of the state of North Dakota? A. Yes, sir.

Q. So, you may take one accounting division, if you please, which lies inside of the state and outside of the state of North Dakota, and state just how the operating expenses and taxes are apportioned in that division. That, I presume, would be typical of all other divisions? A. Yes, sir.

Q. So that one explanation would cover all? A. Yes, sir. Take the Dakota main line, for example, that starts at Crookston, crosses the Red River between East Grand Forks and Grand Forks, and continues west to Devils Lake. That would have, in our accounts, two subheads, as before explained, one for Minnesota and one for North Dakota. These accounts which are shown on Exhibit No. 2 under five heads, maintenance of way and structures, maintenance of equipment, traffic expenses, transportation expenses and general expenses, making up the total of operating expenses, are the general accounting headings, and are themselves divided or subdivided into a great many primary accounts, according to the Interstate Commerce Classification of Operating Expenses. For instance, in maintenance of way and structures, following the supplement to the classification of operating expenses prescribed by the Interstate Commerce

Commission, and effective July 1, 1908, there are twenty-three primary accounts. One of them is "ties," another one is "rails;" another, "other track material;" another one, "road-way and track;" another one, "removal of snow, sand and ice;" another, "tunnels," and so on down through the list. Now, we know where our ties are used by means of the reports that come from the superintendents, each month, based upon the section foreman's material books. Section foremen who are located between Crookston and the Red River use ties which are charged actually to the state of Minnesota. The same thing applies to rails, and all other track material, and to the labor that is used for putting in the ties, rails, etc.

Q. That is an actual charge, then, to the state within which, or within whose boundaries the material is used? A. All those charges are made actually, because we can find out where the material is used, and where we can find out we charge it on that actual basis. That is pretty well true of all of the accounts under maintenance of way and structures except, perhaps, superintendence. There might be an assistant road-master who would have charge of a line from Crookston to, say, Larimore. There would be no way of getting an actual division of his salary, so in that case it would be divided arbitrarily on the track mileage over which he has jurisdiction. There would be an arbitrary division according to mileage, because we think that is the nearest thing that represents that sort of an expense which cannot be located. When you get into maintenance of equipment, which is the next general account, there are also a large number of primary accounts. Twenty-nine seems to be the number on this list. (Referring to paper) I am speaking

now with reference to the classification prescribed by the Interstate Commerce Commission. Some of these are "steam locomotive repairs," "passenger train cars repairs," "freight train cars repairs," etc. Now, it is pretty hard to get anything like an actual division of repairs to equipment to a particular accounting division. With locomotives we have our reports made up so as to show the cost of repairing each locomotive by number, each month, and we divide that expense by the mileage made by that locomotive each month. For instance, if a locomotive was running all of the month on the line from Larimore to Hanna, which is all in North Dakota, the mileage would be one hundred per cent Langdon Branch, North Dakota, consequently all of the repairs for that locomotive for the month would be charged to North Dakota. If the engine was running from Crookston to Devils Lake, we would have an actual division on each trip of the mileage in each state and the cost of repairing the engine in that month would be apportioned between Minnesota and North Dakota on the basis of the mileage made by that engine during that month. In that case we consider that not the road or track mileage would be the best way of providing for an unlocated expense, but the mileage made by each individual locomotive. When it comes to passenger and freight cars it would be impossible and impracticable to keep the cost of repairs by individual cars, and so we take the whole expense of each one of these accounts and we divide, to each accounting division, its proportion on the basis of the mileage made on that accounting division during the month for which the expenses were incurred, on the basis of the passenger car mileage for passenger car repairs, and freight car mileage for

freight car repairs. Now that same thing applies through all the operating expenses.

Q. That is, so far as the charging of the particular portions thereof to North Dakota and the states which touch North Dakota, is concerned? A. Yes, sir.

Q. And the basis which you have used in making these divisions you regard as giving to each state that proportion of the operating expenses which it is fairly and equitably entitled to be charged with? A. Yes, sir, these are the best bases for division of unlocated expenses that we know anything about, and these figures that we have used here are not made up for the purpose of this case, but for our own use in our own accounting for the purpose of giving our management information as to what is being done in general on these accounting and operating divisions.

Q. And are the same bases as were used in the Minnesota Rate case? A. Yes, sir.

Q. Now, you have covered the division of expenses between accounting divisions, also the division of expenses between parts of accounting divisions lying in two states. Now, I notice that you also separate, in statement G. N. Exhibit No. 2, your operating expenses between freight traffic and passenger traffic. I ask you upon what basis are those divisions made? A. The division between freight and passenger are made on each accounting division actually according to the service, as far as it is possible to do so, and then common items which are neither freight or passenger in their nature are also divided arbitrarily in about the same manner as described for the division between states, that is, sometimes it is one kind of mileage, sometimes it is another, depending upon the

class of mileage that most nearly corresponds to the class of the expense that is being divided.

Q. Have you, at the request of the State of North Dakota, in this proceeding, furnished the state with a schedule showing how the division of expenses is made between passenger and freight? A. No, between passenger and freight was not furnished. We furnished that between states, and between accounting divisions.

Q. Have you a statement which will show the basis of dividing common operating expenses between passenger and freight? A. Yes.

(Paper produced and marked G. N. Ex. 4, by the reporter.)

Q. I call your attention to Great Northern Exhibit No. 4, which is headed, "Basis for Dividing Common Operating Expenses Between Passenger and Freight." That statement sets forth the basis which you used in dividing common operating expenses between passenger and freight service in making up Great Northern Exhibit No. 2? A. Yes, sir.

Q. And of course in making Exhibit No. 2, such expenses of operation as refer exclusively to freight and passenger business was charged directly to the freight or passenger business as the case may be? A. Yes, sir.

Q. I will ask you if Great Northern Exhibit No. 4 is a fair basis of dividing common expenses between passenger and freight business? A. It is the basis that our years of experience in trying to do these things leads us to believe is, in each case, the best possible basis that can be found.

Q. And is the basis which we use ourselves? A. Yes, sir.

Q. And which was used in the Minnesota Rate Case? A. Yes.

Q. Referring to Great Northern Exhibit No. 2, being the statement of operating expenses and taxes, you may explain how the results relative to the cost per revenue ton mile for transportation expense is ascertained, being figures shown near the bottom of the exhibit. If you prefer you may cover the division of the taxes first, and state the basis upon which such division is made. A. The division of the taxes is stated in the note at the bottom of the Exhibit, No. 2. The actual levies in North Dakota are taken, and to that we have added the North Dakota proportion, on the track mileage pro rate of the federal corporation tax for the year 1910, making the total amount of taxes chargeable to the state of North Dakota, $616,105.40, and this amount was divided between main line and branch lines, and between freight and passenger on the basis of freight and passenger revenue in North Dakota.

Q. Now, Mr. Martin, I note also that you have made a division between main lines and branch lines on statement Great Northern Exhibit No. 2, which you explain. State just how that division was arrived at. A. The several accounting divisions in North Dakota which are main line were added together so as to get the main line figures, and the divisions which are branch lines were added together so as to get the total branch line figures, as shown on the statement.

Q. That is, after allocating the expenses to each portion of the main and branch lines and the different accounting divisions, then the total main line figures were added together, and the total branch line figures? A. Yes, sir.

Q. Now, near the foot of your statement, Great Northern Exhibit No. 2, you have certain figures which purport to give the transportation cost per revenue ton mile, both main and branch lines, in the state of North Dakota. You may state those figures, and explain just how you arrived at them. A. The revenue in ton miles are kept in our accounts by accounting divisions, which is just the same as explained for the expenses and revenue, and the totals for the various accounting divisions called main line were added together to get a grand total for all main lines in the state, and the total for the various branch lines were added together to get the total for all of the branch lines in the state. These totals for revenue ton miles are placed in the freight column, as applying against the expenses and taxes which we have stated to be freight expenses, for the main lines and for the branch lines. Then, the averages to show the cost per ton per mile were obtained by dividing the revenue ton miles into the operating expenses for the heading, transportation expenses, to get the first average, called cost per revenue ton mile, transportation expenses. All other operating expenses and taxes excepting transportation expenses were then divided by the same revenue ton miles, to get the average per revenue ton mile for all other expenses and taxes, and then the total revenue ton miles were divided into the total operating expenses, and taxes in order to get the average cost per revenue ton mile for the total operating expenses and taxes on the main lines and branch lines separately.

Q. And so computed, what results do you get, as shown on the statement Exhibit No. 2? A. The total cost per revenue ton mile on the main lines arrived

at as just described is 0.427 cents, and on the branch lines, 1.273 cents.

Q. Then, as I understand your statement Great Northern Exhibit No. 2, it shows the average total cost per revenue ton mile for operating expenses and taxes in the state of North Dakota on the main lines, upon all freight averages 0.427 cents, and 1.273 cents on branch lines? A. Yes.

(Paper produced and marked G. N. Ex. 5, by the reporter.)

Q. Now, Mr. Martin, calling your attention to Great Northern Exhibit No. 5, what does it purport to show? A. Exhibit No. 5 brings together the figures used in Exhibits Numbers 1 and 2. It shows first the operating expenses and taxes in North Dakota for the year ended June 30, 1911, brought forward from Exhibit No. 2, together with the revenue ton miles and the cost per revenue ton mile as shown on Exhibit No. 2 with the main lines and branch lines carried forward separately, just as they are shown on No. 2.

Q. And then, using the figures so ascertained and applying them to the lignite coal ton miles as shown on Exhibit No. 1, what relation do you show between the actual revenue on lignite coal and the actual operating expenses and taxes upon that traffic in North Dakota? You may state how you get those results. A. As shown on Exhibit No. 1, the lignite coal mileage on the main lines is 1,423,182, and as shown on Exhibit No. 2, brought forward to Exhibit No. 5, the cost per revenue ton mile as an average for handling all business is .427 cents, which makes the cost of handling lignite coal on the main lines, based on the average cost for the state of North Dakota, $6,-

076.99. Similarly the branch line ton mileage shown on Statement No. 1 is 895,163, to which is applied the average cost per revenue ton mile on branch lines, as worked out on Exhibit No. 2, and brought forward to No. 5, is 1.273 cents, which, applied to the branch ton miles of lignite coal gives, on the average basis, a cost of $11,415.42, or a total for handling lignite coal on main line and branch lines, on the average basis, of $17,492.41. The lignite coal revenue, as shown on Exhibit No. 1, is $17,756.52, so that, after applying the cost on an average basis for operating expenses and taxes against this revenue, we have left a net revenue on lignite coal for the year ended June 30, 1911, of $264.11.

Q. Then, Mr. Martin, your statement, Great Northern Exhibit No 5, shows that assuming the cost of handling lignite coal in the state of North Dakota is the average cost of handling all commodities in that state, that the company has a net revenue on its lignite coal traffic of $264.11? A. Yes, sir, that is applying the average cost of handling all business to the cost of handling the lignite coal business.

Q. Then, assuming that it cost neither more or less to handle lignite coal in North Dakota than the average cost of handling all commodities in that state, that is your result? A. Yes, sir, all business in that state.

(Paper produced and marked G. N. Ex. 6, by the reporter.)

Q. Calling your attention to Great Northern Exhibit No. 6, you may state what it is designed to show. A. Exhibit No. 6 shows the loaded and empty car mileage in the state of North Dakota for the year ended June 30, 1911. It gives, first the total for

the whole state separated as to loaded car mileage and empty car mileage, and then makes a division between main lines and branch lines of the loaded car mileage and the empty car mileage, separately, and then follows the same information for the lignite coal business. That is, the loaded car mileage and empty car mileage, separately, for the lignite coal, and the division of those two items of mileage between main lines and branch lines.

Q. And how are the figures upon which this statement is made, secured, Mr. Martin? A. The total for the state for loaded and empty car mileage, and the division between the main lines and branch lines come from our records, where we keep our car mileage, both loaded and empty by accounting divisions, as before explained, and from the records we have taken the main line and added the several main line accounting divisions together, to get the main line totals, and the same for the various branch lines. For the lignite coal the mileage was kept specially for the purpose of this statement, and is an actual computation.

Q. Kept specially during the year covered by this statement? A. Yes, it does not come from our regular records, but made up as a special statement for loaded cars and empty cars in the lignite coal business.

Q. These Exhibits 1, 2, 5 and 6 all cover the year ended June 30, 1911? A. Yes, sir.

Q. Then, briefly stated, Exhibit No. 6 shows that there is a much larger empty car mileage on lignite coal in the state of North Dakota than on the average for all commodities? A. Yes, sir, the empty car mileage for the lignite coal is 30.9 per cent of the

total car mileage in the coal business, as compared with an empty car mileage of 17.6 per cent for the total for the state of North Dakota, the empty compared with the total in that case also.

Q. Now, referring back, for a moment, to Great Northern Exhibit No. 1, which shows the average haul of lignite coal over the line of the Great Northern Company in the state of North Dakota to be 63.2 miles, will you state what the average haul on all business in the state of North Dakota during the same period of time is? A. 240.92 miles.

Q. And what was the average haul on the whole line of all freight during the period covered by your statement? A. 232.23 miles.

Q. I believe you have already stated, Mr. Martin, that the net revenue on lignite coal in the state of North Dakota in the sum of $264.11 was based on the assumption that it cost no more to handle lignite coal in North Dakota than the average cost of handling all business in that state. A. Yes.

Q. Now, I ask you, in the light of your experience in the railroad service, such as you have stated here, are you of the opinion that the cost of handling lignite coal on the lines of the Great Northern Company in North Dakota is in excess of the average cost of handling all the business of the Great Northern Company in that state, or is it less than the average? A. It is very much more.

Q. You may state the grounds, if you will, upon which you predicate that opinion. A. One of the grounds I have already mentioned in connection with Exhibit No. 6; that is that the empty car miles hauled in order to get the loaded lignite business is very much in excess of the empty car mile-haul necessary

to get the total loaded business in the state of North Dakota, the average for the lignite coal being 30.9 per cent, and for the total being 17.6 per cent.

Q. And the larger the empty car mileage in handling any particular business, the greater the expense of so handling that business? A. Yes, sir, because the empty car mileage is to be paid for by the revenue which is secured from the total haul.

Q. You may continue, and give other reasons that you have in mind, upon which you base your opinion —the other grounds, rather. A. The local to the state revenue in the state of North Dakota is very small as compared with the total revenue in North Dakota. For the year ended June 30, 1911, the total freight revenue assignable to the state of North Dakota in the manner that I have heretofore explained, was $6,850,656.68, out of which the local to the state proportion is $371,222.78. The local to the state business is of a class that is handled locally, that is, handled in the so-called local or way freight trains, and included in that would be this lignite coal which is shown on Exhibit No. 1 to have made an average movement of only 63.2 miles. A local train service is that which handles the local to the state business, usually, and on the branch lines, for the greater part of the year there is not enough traffic to reach the capacity of the cars or of the engine, and the local trains on the main line also suffer somewhat on that same account. The local train, instead of being able to haul full tonnage to the capacity of the cars and locomotive, has to move making allowances for this local business. For instance, on Exhibit No. 1, the lignite moved from Avoca made an average of 45.3 miles. The division over which the freight train that

handled that coal would run would be from Williston to Minot, a distance of about 120 miles. This would mean that when there was a call for an empty car at Avoca to load with lignite coal, if the car was furnished at Williston, which is something like seven miles west of Avoca, the train leaving that terminal point, if it had full tonnage at that time, would have full tonnage only that seven miles, and they would have to set out this empty car and then run light until it could find another car to pick up, if there was one in that distance of 120 miles. Of course that local train had to stop at Avoca and make the switch necessary to set out that car to the mining spur, then pick up its train and go on again. When the car was loaded (it might be the full time of seventy-two hours), if it was going east, a train out of Williston would have to leave that station light in tonnage sufficiently to enable it to pick up this car that was ready to go, and it would haul it an average of forty-five miles, and then would have to set it out and run light again to Minot, unless it could pick up another car somewhere to fill out the tonnage of the train, in which case, there being switching for each picking up and another switch for setting the car out, another for picking up the car that would fill the tonnage, if there was such a car. If the car was going from Avoca to some point west of Williston, the train picking it up would have to run light, perhaps, all the way from Minot to within seven miles of Williston, or 113 miles, approximately, so as to be able to pick up this car. Then it would have to be set out and switched into another train, and if it was going, say, to Buford, that train would haul it from Williston to Buford, twenty miles, set it out,

and then run light to the next terminal, which is Glasgow, about one hundred and fifty miles, unless it could find another car to pick up and fill out the tonnage. This also means that the cars will be much longer in the lignite coal service than in other classes of service, because from the facilities for loading and unloading, there would probably be full time of seventy-two hours taken at each terminal for only an average haul of sixty-three miles for the total, in the state, of lignite coal. Those are some of the things that I think of that cause local trains to cost more than other trains. And, also, an extra brakeman has to be put on and paid on way-freight trains, and other things of that kind, which make the cost of local service far in excess of the cost of other service.

Q. Is there anything in the time of the year in which lignite coal moves which would increase the cost of handling it over the average cost of handling all business in North Dakota? A. Yes, there is more of it that moves during the cold weather—during the time it is very expensive to keep the line open, and when the locomotives, on account of the cold and the snow are not able to haul anywhere near full tonnage, and so on.

Q. Would, in your judgment, in the light of your experience, the increased cost of handling lignite coal on our lines in North Dakota over the average cost of all business in that state, be sufficient on our business to wipe out the net earnings of $264.11, as shown on your Exhibit No. 5, and leave a deficit from the handling of the lignite coal, in North Dakota? A. Yes, it would much more than wipe it out, and

leave a good sized deficit from the handling of the lignite coal in North Dakota.

Mr. Armstrong: I offer in evidence Exhibits, Great Northern Nos. 1, 2, 3, 4, 5 and 6, and each and all of them. That is all.

And the hearing adjourned, to be resumed at the convenience of the parties to this cause.

Hearing was resumed at 10:00 o'clock A. M. of May 22nd, 1912, in the offices of the Northern Pacific Railway Company, in St. Paul, Minn., pursuant to adjournment taken.

Present, the Counsel for the State.

Present, the Counsel for the respective defendants.

G. R. MARTIN,

having been heretofore duly sworn, was called as a witness for the defendants, and testified as follows:

CROSS EXAMINATION.

By Mr. Young:

Q. Mr. Martin, if you increase the live loading per car of freight, do you decrease the cost per ton mile, provided the weight of the car remains constant, and other conditions being equal? A. If all the other conditions are equal, I should say you would.

Q. In your experience as a railroad man, does it or does it not, cost anything to haul the empty cars? A. Yes, it actually costs something to haul the empty cars.

Q. And the practice in your railroad operation is to load the engine to its full capacity, is it not? A. As closely as possible, yes, sir.

Q. In considering this capacity, or in making up this capacity, you consider both the dead and the live weight, do you not? A. In determining the tonnage that will be assigned to the engine, yes, for operating purposes.

Q. Does the Great Northern Railway make any distinction in train capacity between loads and empties? In other words, do you load your trains with the same weight of empties as you do of loads? A. Well, I do not know as I am fully posted on that operating matter, so as to answer it except in a general way, and that is the same answer as before, that we try to give our engines as much as they can haul.

Q. Regardless of whether it is dead or live weight? A. Yes, sir.

Q. Do you know whether you can haul as much of the dead weight of empty cars as the gross weight of live? As much of the gross weight of empty cars as the gross weight of live? A. I believe that there is an allowance made for the additional number of wheels that have to be moved in order to get the same weight of empties as you would get if the cars were loaded.

Q. Do you know how much that allowance is? A. No, sir, I do not.

Q. Now, your exhibits. You show 129,896 car miles loaded and empty, used in the lignite coal traffic on main and branch lines. That is correct, is it? A. Yes, sir.

Q. And you show 2,318,345 ton miles for the same period. That is in Exhibit 1. A. Yes, sir.

Q. Now, that gives an average per car mile of 17.85 live tons for lignite coal, taking into consid-

eration both the loaded and empty car miles, does it not? A. Yes, sir, 17.85 is correct.

Q. Now, the total loaded and empty car mileage of traffic for the state is as shown by Exhibit 6, 57, 408,931? A. Yes, sir.

Q. And the total mileage of all traffic, revenue ton mileage, is 755,194,487? That is Exhibit No. 2. Now, the average live loading for each car mile determined from these figures is 13.15 tons, is it not? A. (Witness figures on a piece of paper). 13.15 tons, yes, sir.

Q. Then the live tons, that is, paying load, on the lignite traffic is approximately 36 per cent more than all traffic for the road, is it not? A. Somewhere in that neighborhood, yes.

Q. And this relation is approximately the same as to both the main and branch line business, is it not? A. Why, I presume it is. Those cars moved over both lines indiscriminately, as far as I can tell from the total figures.

Q. In your tables you have attributed the same cost to the lignite in spite of this difference in general between the live and dead load, have you not? A. The figures of cost have all been worked out on an average, yes sir.

Q. Will you state, Mr. Martin, what are the duties of freight handlers? A. Referring to the freight handlers at stations?

Q. Yes. A. Why, they are the men that load and unload the freight from the cars into the warehouse, and vice versa—those laborers that work at the station warehouses handling freight to and from the cars.

Q. Do they handle carload freight? A. No, ordinarily not, at least. Not as a rule.

Q. In making these tables you did not eliminate any of the expenses of handling freight in assigning the cost to lignite coal, did you? A. No, sir, the total cost of the business is included as divided to the state of North Dakota—as assigned to the state of North Dakota.

Q. You know about how much of the station service expense is due to freight handling, do you? A. In the state of North Dakota very little. There are very few stations in North Dakota where there are exclusive freight handlers employed.

Q. In that state, then, this freight handling duty is usually performed by the railway agent, is it? A. Yes, by the regular station force, which would be the agent himself, or his telegraph operator might help, depending on the time of day, etc.

Q. You did not make any allowance for that either in preparing the statement, did you? A. No, sir, I did not.

Q. Does it cost as much per ton for clerical work and agent's superintendence for carloads as for less than carload freight? A. It costs less for carloads for waybilling, making the expense bills, and for such work in connection with it.

Q. Do you know about how much difference there is per ton? A. No, I do not.

Q. Have you made any allowance for the difference of expense in favor of lignite coal? A. No, sir.

Q. In using the revenue ton mile basis of assigning the expenses to lignite coal, your per cent for the main line was .20206, was it not? Deduced from the ton mileage of 1,423,182 of lignite coal, and the

ton mileage for all traffic of 704,312,900. The ton mileage for all traffic is shown on Exhibit No. 2, about the middle of the page, 704,312,900. The first figure is from Exhibit No. 1. A. .20206 seems to be correct, yes, sir.

Q. Do you know what the percentage would have been if you had used the gross weight instead of the live weight? A. No, I do not know.

Q. Do you know the average weight of your cars? A. Why, I presume that somewhere in the neighborhood of sixteen or seventeen tons would be the weight of the cars.

Q. Your cars run about the same in weight as the Northern Pacific, do they? A. I should think so. They are about the same kind of cars.

Q. I believe that the testimony shows they average about sixteen tons. On that basis, could you determine readily for us here, Mr. Martin, what the percentage would be if gross weight were used instead of net weight? By referring to Exhibit No. 6, the car mileage. A. The figure is .1577 per cent.

Q. Now, in assigning the expenses on the branch lines as to lignite coal, you have used the live ton miles again, have you not? A. Yes, sir.

Q. That assigns 1.7593 per cent to lignite coal, does it? A. That percentage is correct, yes, sir.

Q. What percentage would you have had if you had used gross weight instead of the live weight? A. 1.5633 per cent.

Q. Now, in assigning these expenses, if you used the total car mileage to determine from that the percentage, could you tell us what it would be on the main line? Exhibit 6. A. The per cent of the main line car mileage for the lignite movement, using the

total figures, to the total main line car mileage, is .1206.

Q. And what would be the corresponding figure for the branch lines? A. The car mileage percentage of the total branch line, to total main line, is 1.4288. It is the total branch line car mileage and the total lignite branch line car mileage.

Q. Then the percentage shown by the figures which you have actually used in assigning the expenses to the lignite business is higher on both the main and the branch lines than the figures shown by these other deductions, is it not? A. Now, let us see what your comparison is, here. (Figuring on piece of paper.) That is the percentage on the net ton mile basis for the main line is higher than the gross ton mile basis and the car basis, yes, sir.

Q. Will you explain what you mean by the terms main line and branch line, as you have used them in the exhibits?

(Question withdrawn.)

Q. As I understand it, Mr. Martin, each branch line in North Dakota is an accounting division? A. Yes, sir.

Q. In your testimony you have explained how the expenses under the accounting headings, Maintenance of Way and Structures, Transportation Expenses, and Maintenance of Equipment, have been obtained for each accounting division. Can you explain how the expenses under the heading General Expenses and Traffic Expenses have been obtained? A. In a general way they were arrived at on the same basis. That is, everything that you can locate, actually, is so located. In those accounts there probably is not a great deal compared with the other accounts, that

can be actually allocated, and when the item is a common item it is divided on the same basis—the item is divided on some arbitrary basis. As shown by the statement furnished at the request of the state and marked Article III-c, headed "Rules for Apportioning Operating Expenses to Accounting Divisions."

Q. Will you define in a general way what is meant by Traffic Expenses? A. The sub-accounts under traffic expenses are those which are placed there by the Interstate Commerce Commission in its classification, and it includes the superintendence which would be the general traffic manager and the general freight agents, and all of the general officers in connection with the traffic department. Next, Outside Agencies, which would be all of the soliciting agents both off the line and on the line. Advertising. The expense of traffic associations; fast freight lines; industrial and immigration bureaus; stationery and printing made necessary on account of the traffic department, including tariffs and any other expenses that might relate to the securing of traffic. The names of the accounts will be found in the statement of operating expenses, furnished at the state's request, Article III-a and b.

Q. The purpose, generally, of the railroad in incurring these expenses is to obtain traffic for the road? A. Yes.

Q. And see that proper tariffs are made for handling the traffic? A. Yes, sir.

Q. That becomes a part of that expense? A. Yes, sir.

Q. Does the lignite coal traffic require any more care from this department than any other freight traffic? A. I think not.

Q. Is not a large part of the traffic department's time taken in holding competitive traffic? A. Yes, sir, I think it is.

Q. Can you state how much of your branch line traffic is competitive? A. No, sir, I can not.

Q. Do you know if any of it is in North Dakota? A. Oh, yes, there is a great deal of it that is competitive.

Q. Is any of the lignite coal traffic competitive traffic? A. I think not, to any great extent.

Q. Do you know of any that is along your line there? A. I presume that that largely resolves itself into a question of where the miners want to sell, and where they can sell their product within the limits that the lignite coal can be hauled.

Q. That kind of business would not, then, require any time of the traffic department to handle? A. I would not say it would not require any time. It requires some time to take care of the tariffs and there is a certain amount of the supervision of the traffic department that has to be given to all business.

Q. It would not take any part of the department to solicit the business? A. No, I should think not. Not a great deal, at any rate. It would be small.

Q. As a matter of fact the lignite coal business must nearly all, if not all, be shipped by way of the branch line upon which the mine is located, must it not? A. From the originating point, yes, sir. The point of destination might vary.

Q. There are comparatively few points in the state that could be reached over any other road after the shipment reaches the main line of the Great Northern, or very few points where it could be shipped over another road that is also reached by the Great

Northern through its main line or branches? A. Oh, I presume that it could be moved to any station on the Soo Line, or any Station on the Northern Pacific. As a matter of fact it probably is not.

Q. There are very few stations that are reached by the Northern Pacific and the Soo, both? A. There are a good many stations that the Great Northern reaches that the Soo reaches.

Q. There are very few stations that would be considered the terminus of more than one road, are there not? Terminal points? A. On the branches?

Q. Yes, or the main line. Common terminal points for the two roads? A. Very few, yes, sir.

Q. Are there any in the state, as far as your road is concerned? A. No, I think there are no branch lines in the state where both the initial and terminating point of the branch line are competitive with other lines.

Q. Can you state how much of your traffic expenses is charged to fast freight lines? A. Not any of it. Referring, again, to this exhibit of expenses that I gave you, Article III-a and b.

Q. The freight traffic which is secured on branch lines in North Dakota, which is destined to your eastern terminals or any other line transfers, is benefited by the expense, is it not? A. Yes, sir.

Q. According to your exhibits it costs 21.1 per cent of your traffic expenses in North Dakota (Exhibit No. 2) to handle 6.7 per cent of your revenue ton miles in the state, handled on branch lines. Do you think that fairly represents the situation? A. I would say in answer to the question that my figures are made up on an average, and it is quite likely that in some cases, in making any average for any kind

of traffic, that there will be some accounts which will be too high in respect to one particular commodity, and will be too low in other accounts for that commodity. This is made up on an average basis, and intended to eliminate all those differences that might come in if we should attempt to find out what it would cost to move some particular commodity.

Q. On Exhibit No. 2 you show that during the year ending June 30, 1911, it cost you an average of 4.27 mills per ton mile for operating expenses and taxes on the main line, and 12.73 mills per revenue ton mile for operating expenses and taxes on branch lines, do you not? A. Yes, sir.

Q. Do you consider any class of carload freight traffic handled on branch lines in North Dakota to be more expensive than any other class of traffic handled on branch lines in that state? A. My figures are based on the average of all classes of traffic.

Q. According to these figures there would be no variation in the carload traffic. Those figures are based on the average for all traffic.

Q. According to those figures, every carload will cost the same per ton mile? A. Yes, sir.

Q. So that a car of lignite coal and a car of wheat would cost the same according to those figures? A. Yes, sir.

Q. According to Exhibit No. 1, a large part of the whole lignite business originates at Noonen, does it not? A. About one-third of the tonnage originates at Noonen.

Q. That is the largest point of origin, is it? A. Yes, sir.

Q. Exhibit No. 5, you apply the branch line cost as determined in Exhibit No. 2, to such part of the

lignite business as was handled on the branches, and similarly applied the main line cost found in Exhibit No. 2, to the lignite coal business moving over the main line. Now, if you applied the same method to the traffic originating at Noonen the branch line cost of that traffic would be $9,152.93? A. Yes, sir.

Q. And the main line cost $1,250.88? A. Yes, sir.

Q. And the total cost of the Noonen traffic, main and branch line, including taxes, $10,403.81? A. Yes, sir.

Q. And the revenue from the Noonen traffic, $7,204.30? A. Yes, sir.

Q. Leaving a total deficit of $2,199.51? A. Yes, sir.

Q. Now, if you applied the same method here used to the lignite traffic, exclusive of that coming from Noonen, what would be the result, assuming that on all of this lignite business exclusive of the Noonen business, the total cost is $7,067.60, and the gross revenue from all of the business excluding the Noonen business, $10,552.22, the road would derive a net revenue from this business of $3,484.62, would it not? A. Yes, sir, assuming that that is so, yes, sir.

Q. These calculations show, then, that the Noonen traffic shows a deficit that is made up by the other traffic of the road, the lignite traffic? A. Yes, sir.

Q. According to these figures, is not the lignite coal traffic, exclusive of the Noonen traffic, compensatory? A. Yes, according to those figures, and in separating one class of business from one station.

Q. In your judgment should Noonen pay a higher rate for similar distances than the other coal mining points because it is on a branch line, and the other

points are on a main line of the road? A. In order to make a paying rate it would have to be higher to balance out the cost arrived at according to that method.

Q. Exhibit No. 1 shows that prior to April 11, 1910, the average rate per ton mile on lignite coal on your road was .01149, and Exhibit 2 shows that the branch line cost per revenue ton mile was $ .01273? A. Yes, sir.

Q. Now, had your rates prior to the period that the legislative rate became effective, been in effect during the period covered by your exhibit and the business been confined to the branch lines, that rate would have been compensatory, would it not? A. It would not have been sufficient to have brought cost, supposing that these conditions were the same. This statement is for June 30, 1911, and the rate was prior to April 11, 1910.

Q. Now, Exhibit No. 1 shows the average revenue per ton mile under the present rates for the year ending June 30, 1911, to have been 7.66 mills? A. Yes, sir.

Q. And Exhibit No. 2 shows the main line expenses and taxes for the same period to have been 4.27 mills per revenue ton mile? A. Yes, sir.

Q. Then, so far as your main line lignite business is concerned, the legislative rates are remunerative, are they not? A. Yes, it works out so on these figures, using that basis.

Q. You made a special report to the Railroad Commission showing the earnings per revenue ton mile on all interstate business in North Dakota, of 8.78 mills per revenue ton mile. Do you remember that, Mr. Martin? A. I do not remember it, but I have

the statements here. Yes (referring to papers), that is the figure arrived at from figure S-325 by dividing the ton miles into revenue.

Q. And Exhibit No. 2 of your testimony shows that branch line expenses and taxes, per revenue ton mile, is 1.273 cents. Now, would you conclude from these figures that the interstate business handled on branch lines is not paying the expenses and taxes properly chargeable to that business? A. The figure of 8.78 is the total for all interstate freight in the state, both main line and branch line and is compared against the cost 1.273 for the branch line. On that basis the revenue does not pay the expenses.

Q. And using the main line cost as shown by your Exhibits in the testimony in this case, 4.27 mills, you would conclude that the interstate traffic handled on the main line is remunerative, would you? A. I do not like to compare costs on branch lines and the costs on main line with total, but on the basis of the figures that you are using the return from the total interstate is greater than the cost of the main line freight as shown by Statement No. 2, that is, 8.78 compared with 4.27.

Q. Your company maintains the same schedule of rates for similar distances on both main and branch lines in North Dakota, does it not? A. Oh, I couldn't say, excepting in a general way that probably it does.

Q. Are grain rates to the eastern terminals and coal rates from terminals such as Duluth and Superior, relatively the same for similar distances to both main and branch line points in the state? A. I could not say as to that. I am not a rate man. I am not posted on the rates.

Q. Do you know whether the traffic department

considers the difference in main line and branch line costs in fixing these rates? A. I do not know, but I imagine that it does not.

It being noon, recess was here taken until 2:00 o'clock P. M.

Hearing was resumed at 2:00 o'clock P. M., May 22, 1912, pursuant to recess taken.

Present the counsel for the state.

Present counsel for the respective defendants.

Mr. Martin on the stand.

Q. Now, Mr. Martin, in your annual report to the Railroad Commission of North Dakota for the year under consideration, you show, for all lines in North Dakota, an average earning per revenue ton mile on intrastate freight, of 2.889 cents, and your Exhibit No. 2 shows the branch line expenses and taxes per revenue ton mile for North Dakota, as 1.273 cents. Your special report to the Commission, the one referred to this morning, shows earnings per revenue ton mile of interstate freight, of .878 cents. From these figures, would you say that the intrastate traffic is the only class of traffic on the branch lines of North Dakota which pays its expenses and taxes, and contributes towards dividends? A. I would not say anything further than these figures show, assuming that 2.889 cents is the figure, the amount received for the intrastate freight is more than the expense for the branch line business and the expense for the branch line business is more than the amount received on the average for the interstate freight.

Q. Yes. Have you made a computation to show the total revenue from lignite coal on the branch lines in North Dakota? A. I have taken the branch line ton miles, of 895,163, as shown on Exhibit No. 1,

and multiplied it by the average present rate per ton per mile on the same exhibit, namely, .00766 cents, which produces $6,856.95.

Q. Have you made a similar computation as to the receipts or revenue from lignite coal on the main line in North Dakota? A. In the same way, taking the ton mileage for the main line as shown on the statement, Exhibit No. 1, 1,423,182, multiplied by the same average rate of .00766 cents, producing the amount $10,901.57.

Q. Now, taking the factor of 895,163 revenue ton miles for branch lines at a cost for service of 1.273 cents per revenue ton mile, have you determined the total cost of the whole branch line lignite coal business for North Dakota? A. On that basis the amount is $11,394.42.

Q. And using 1,423,182 revenue ton miles as shown by your exhibits for the main line lignite business of North Dakota at a cost of .427 cents per revenue ton mile for expenses and taxes, have you determined the total cost? A. That amounts to $6,076.99.

Q. From those figures, then, what is the relation between the receipts and the expense of handling the lignite coal traffic on the branch lines? A. The expense thus arrived at is $4,538.47 greater than the revenue thus arrived at.

Q. And what is the relation between the expense and receipts as to the lignite coal business on the main line? A. The receipts on that basis are $4,824.58 in excess of the expenses.

Q. So that the loss on the branch lines is more than made up by the receipts on the main line? A. Yes, sir, on that basis.

Q. And that leaves you the net revenue, as shown

by the Exhibit No. 5, of $264.11? A. It is substantially the result shown on Statement No. 5, which is a net revenue of $264.11.

Q. Assuming that the operating ratio on main line business, covering expenses and taxes, absorbed only 55.7 per cent of the earnings, would you consider the traffic desirable and compensatory? A. I should think probably it would be, the operating expenses being that per cent of the revenue.

Q. I believe you stated that one of the elements of the extra cost on local trains is an extra brakeman. You carry an extra brakeman? A. Yes, sir.

Q. Is it not a fact that the extra brakeman is carried so as to assist in loading and unloading less than carload freight, and to perform other duties necessitated by the slow movement of local trains? A. To do that and switch in and out lignite coal and other things, yes, sir.

Q. Are you familiar with the agreements made by your road with enginemen, conductors and brakemen? A. In a general way, yes, sir.

Q. Do not these agreements define a local train, even to the extent of differentiating in the wages of the employes? A. Yes, the local trainmen get a higher rate of pay than on the through trains.

Q. Is it not a fact that it is only in trains carrying the peddling car that local wages are paid either to enginemen or to conductors or brakemen, or to the extra brakeman employed? A. I presume that the trains that have the local wages do have the peddling car, but it might that a way freight might be run under a regular schedule, and not have a peddler car in the train.

Q. In such a case as that, what wages would the

engine or trainmen receive, and would they have the extra brakeman? A. Yes, because the train, as I am supposing it, is a local train, and presumably it would have the peddler car, but not necessary or absolutely so, perhaps.

Q. The reason, then, for carrying the extra brakeman is that the peddling car is carried in the train, or assumed to be carried in the train? A. That is one of the reasons. Another is because the train does all the switching, among which is the switching of the lignite coal in and out from the lignite coal spur and delivery at its destination, etc.

Q. Well, that class of train that you are mentioning now is really the branch line train? A. No, I am speaking of the local train on the main line—such a train as would move this coal from the station at Avoca.

Q. You do run a class of train, do you not, which is intermediate between the fast through and the local trains, that does not stop to handle local freight in less than carload lots, and which still does stop to pick up or switch out carload freight? A. Why, any train that has the capacity to take a car locally would take it if it was there to go, and if there was a car of coal, for instance, at Avoca ready to go, if the way freight train was not there convenient to take it, or if it could not take it, and it was going through to the end of the run, as some cars might do, the dispatcher might probably let a train out of Williston light so as to pick up that car. It would depend upon the exigencies of the business—the situation that the train dispatcher happened to find at that moment.

Q. Now, if the train stops to pick up a car, would it be necessary to carry an extra brakeman for that

service, or would it necessitate the payment of local wages to the trainmen, who are carried? A. Of course, this is all guess-work, but if the train was not a local train, and it happened to take one of these cars of lignite coal which, on an average, may have sixty-three miles to go, or only half the distance over the division, there would not be any extra braking, and they would not need any extra brakeman, but, the movement being only over a part of the division would naturally be on the local train put on for the purpose of handling the local movement.

Q. Well, then, so far as you are able to state, the extra brakeman and this payment of extra wages for local men, are items that are really not necessitated by the fact that the car stops to pick up a carload business? A. All of these extra expenses are not necessitated by any one thing, but by a combination of the things that come to that particular train, among which is the handling of the short-haul business which is to be picked up and set out along the route. Part of the service is occasioned by the work and part by the loading and unloading of freight, and all of the extra work that comes to the train hauling the short-haul business as compared with a through train with full tonnage from one terminal to another. It is not any one thing. It is a combination of all the business that comes to the train.

Q. Would you be able to get one of the agreements —a copy of the agreement that is used between the enginemen and the trainmen for local train service? A. I think so, yes.

Q. Would you be willing to do that? A. Yes, sir.

Q. Now, I believe you have testified that the cold weather of the North Dakota winter increases the cost

of doing business in the state? A. Yes, sir.

Q. Are you able to state in some definite way what that increase in cost is? A. No, sir, it would vary with the temperature, to a greater or less extent; with the amount of snow filling up the flanges of the rails, making the wheeling hard. It would depend on weather conditions from day to day. I could not say in dollars and cents, but it is quite a large amount of expense, and, as I say, varies according to the temperature and the weather conditions.

Q. You have no figures or percentages that would throw any light on that? A. No, sir, and I could not make any.

Q. Do you know if it has ever been the practice on the Great Northern, to charge more, or increase its freight rates for business moving in the winter than for business moving in the summer time? A. I never heard that it was the practice to increase the rates in the winter as compared to the summer.

Q. Referring to Exhibit No. 6. Will you state how you arrived at the figures for loaded and empty car mileage on lignite coal traffic? A. Those figures were specially kept for the purpose in the transportation department. They are the actual figures of the orders for the empty cars and their movement, and the loaded car movement after the car was loaded.

Q. You mean, then, that there are no arbitraries used in that computation? A. No, sir, no arbitraries were used in my figures.

Q. The empty mileage; in these figures which you state were basic figures, the empty mileage is from the point from which the car is moved to the point of shipment of lignite coal? A. Yes, sir.

Q. So that if a car were moved from St. Paul to

Noonen for the purpose of hauling lignite coal, the entire 612 miles from St. Paul to Noonen would be considered the empty mileage chargeable to that? A. No, hardly that, because if a car moves from St. Paul it is simply destined for a certain division. After it gets onto the division, the train dispatcher assigns it to the various orders that he may have for cars. It would be this last move on the division that would be so charged. The far haul would not be included. It is the division haul, according to the train dispatcher's delivery of cars to fill his orders.

Q. Your statement is that there are none of these extra long empty hauls? A. None of these long hauls, not, that might be worked out in these figures.

Q. The method which you have used in arriving at your result, Mr. Martin, you would regard more satisfactory than the gross earnings method, would you? A. I think that this is the fairest method of arriving at figures of this kind for this purpose.

Q. You are preparing for us, are you, statements showing the total passenger and freight expenses by primary accounts accounting divisions for North Dakota? A. I am preparing them for the total expenses.

Q. You can get those separately, can you not? A. I can, by taking a little more time. It would probably take another day.

Q. If a car of lignite coal, say, were carried from Noonen, charged with an empty haul of one hundred miles, and unloaded at Minot, and then loaded with flour and shipped to Seattle, that entire empty haul would be charged to lignite would it? It is loaded with flour at Minot. The entire empty haul would be charged to the lignite coal, would it not? A. The empty haul from the place where the empty car moved

on the order to fill to Noonen would be charged to the car, and that is the end of that proposition.

Q. There would be no empty charge to the flour shipment? A. No, and vice versa, if the lignite coal order could be filled from cars coming into Noonen with something else, there would be no empty charged against the lignite coal.

Mr. Young: That is all.

RE-DIRECT EXAMINATION.

By Mr. Armstrong:

Q. In your testimony you have used, at different times, the expression "live and dead" freight. What is meant by these terms? A. The term live freight means the contents of the cars, which would make up what I have shown on Table No. 2 as the revenue ton miles, and the dead freight would be the weight of the car, itself, in which the paying freight was hauled, or an empty car, if a car would be hauled empty, the whole weight would be dead weight.

Q. This live and dead weight added together would be the gross load in most instances? A. Yes, sir.

Q. Except in those cases where an empty car was hauled to the original shipping point? A. In that case it would be the full weight, or dead weight, but that would be the gross weight.

Q. The live weight is really the net weight of the car? The net weight of the freight? A. Yes, it is the net revenue ton miles, as I have used them on this statement—on these exhibits.

Q. Now, your attention was called on cross examination, to the question of expenses due to the handling of freight by freight handlers at stations in North

Dakota. I ask you with reference to the number of freight handlers provided by this company at these North Dakota stations. A. The number in North Dakota would be very small, as these separate handlers, as such, are employed only at the larger stations like Grand Forks, Fargo and Minot.

Q. And of course that expense is included in your total operating expense as shown in your statements? A. Yes, sir.

Q. And the proportion which has been charged to the lignite coal traffic is simply the proportion of the entire expense averaged to the net tons? A. Revenue net tons, yes, sir.

Q. And the factor of expense for billing and office work at the different stations have been treated in the same way? A. Yes, sir, the amount of extra expense in North Dakota, and that amount would be very small, as there are but few stations in the state which have separate bill clerks. The billing at all the other points will be done by the local station force, as a part of their general work, and there is no additional expense to the company because they may happen to have some less than carload freight as well as carload freight, on particular days.

Q. Consequently you have made no allowance in favor of lignite coal, on account of the fact that possibly the expense of freight handlers and way-billing, and office work is less on that commodity than on other commodities. A. No, I have made no allowance for all my figures are on an average, but freight handlers and bill clerks in North Dakota would form a very small portion of the total expense.

Q. If these items were eliminated entirely from the lignite traffic, in your figures, would there be any

material difference in the results which you have shown? A. No, sir, I think there would be no material difference.

Q. Getting at and allowing deductions, on lignite coal, from these expenses would make merely a negligible difference so far as those figures are concerned? A. Yes, sir.

Q. Now, referring to the element of Traffic Expenses, which was also the subject of consideration upon cross examination. No allowance was made in favor of lignite coal on that account? A. No, sir.

Q. Your statement being based entirely on average? A. Yes, sir, based on averages, without making any allowance for the individual items that might not affect lignite coal, and those which might affect lignite coal a good deal more than the ordinary kind of freight.

Q. Now, if an allowance was made upon lignite coal on account of the traffic expenses, would there be any material change in the average figures as shown by you in your statements? A. No, sir, the total amount of traffic expenses in North Dakota is only in the aggregate, three per cent of the operating expenses.

Q. So that if the entire three per cent were excluded from the cost of handling lignite coal, the figures which you show would not be substantially changed? A. It would not make a great deal of difference. The amount is small.

Q. Now, we have considered the expenses caused by the wages of freight handlers, the additional expense of way-billing, and office work, and the additional element of traffic expenses, which it is suggested should have no application to the lignite coal traffic. Are there any elements which now occur to you, or any factors which, as applied to the cost of lignite coal—

of handling lignite coal, are in excess of the cost of handling the average commodity in the state of North Dakota? A. Nothing further than was testified to in the direct examination, and as we have just covered it in the cross examination, which are the items that affect the local business of that character.

Q. And stated briefly, those items are what? A. The fact of the short haul on the main line, or that it is a branch line movement on the branch lines; the main line train expense of hauling for local trains being pretty fairly comparable with the cost of the same service on the branch lines; the extra expense of the local trains; the fact that the lignite coal moves in the cold weather when it is more expensive to operate in North Dakota, and those various elements that we have discussed, and the empty car movement.

Q. And also the additional time over the average in which a car is engaged in the lignite coal traffic may be tied up? A. Yes, with an average of sixty-three miles per haul, a car might be six or seven hours on the road in going from the loading point to the unloading point, and it might, on account of the poor facilities for loading and unloading, be the full limit of seventy-two hours at the loading and unloading point, so that the car would be tied up for a very long time loading and unloading as compared with the time of the haul.

Q. In arriving at the cost of handling the lignite coal you have used, in your exhibit, the factor of net ton miles as distinguished from the gross ton miles, or a car mile basis. It has been suggested, inferentially, at least, that the factor of the gross ton or car mile basis should have been used. I ask you why you used the factor of net ton miles, and the

reasons why you consider that that factor gives a fairer result than by using the factor of gross ton miles or the car mile basis? A. I based my figures on the net revenue ton miles because it is the revenue ton miles only that brings any return. I was asked at the beginning of the cross-examination if it did not cost something to handle the empty cars. That cost of handling empty cars must be spread over the revenue net tons that are hauled in those cars. I consider that the revenue ton miles was the proper basis for arriving at these averages.

Q. It is the revenue ton miles from which the company gets its compensation for the haul? A. The money we have earned comes from the revenue ton miles.

Q. Referring, now, particularly to the movement of lignite coal. In what character of trains in the state of North Dakota does the lignite coal ordinarily and normally move? A. Of course the branch line movement is in the only freight train that is ordinarily run on the branch lines. The main line movement would ordinarily be in the local way freight trains which stop at every station to pick up and set out the local cars.

Q. Then a movement of lignite coal in a through train would be an unusual or extraordinary movement? A. Yes, sir.

Q. What would be the effect on through trains if they were used for the handling of lignite coal traffic? A. If they were used to any extent it would make them into local trains.

Q. It would result in subjecting the through trains to the same additional expenses which are incurred in the case of the operation of the local trains? A.

If it were done. I think that would be absolutely theoretical. It would be only once in a while that a car would move in that class of train.

Q. Ordinarily, or normally, lignite coal on the main line moves in local trains? A. Yes, sir.

Q. Mr. Martin, referring to Great Northern Exhibit No. 2, which shows the average operating expenses and taxes per revenue ton mile on freight trains on the main line, of .427 cents. I ask you if that cost, as so expressed, covers the cost of handling the lignite coal in the local trains in which you have stated it ordinarily and customarily moves, or would that cost of .427, as so expressed, be less than the actual cost of so handling it? A. That is an average cost, and it is less than the cost would be for the local trains. The cost of moving a local train on the main line would more nearly approximate the cost of the kind of trains that are handled on the branch lines that have a fairly heavy business, so that there is a good train load to handle back and forth on the branch line.

Q. The figures shown as the total cost per revenue ton mile for operating expenses and taxes on the branch lines, which are 1.273, would more correctly represent the cost of handling the lignite coal traffic than the cost of the trains in which it is handled in the main line traffic, or than do the figures shown in your statement as .427 cents? A. The local train on the main line would come more nearly in comparison of service and haul, with the branch line and the lignite movement in these local trains would come more nearly to the branch line cost, in my opinion, than the main line cost, if we were going to begin to segregate

and eliminate way and through, and work on this supposition.

Q. That is all.

Mr. Young: Mr. Martin is excused for the present.

Hearing was resumed at 10.00 A. M., May 24, 1912, in the general offices of the Northern Pacific Railway Company, in St. Paul, Minn., pursuant to adjournment.

Present the Attorney General, and other representatives of the State of North Dakota.

Present the attorneys for the respective defendants.

MR. G. R. MARTIN,

having been heretofore duly sworn, was called to testify as a witness on behalf of the defendants, and testified as follows:

RE-DIRECT EXAMINATION.

By Mr. Armstrong:

Q. Mr. Martin, in the course of your cross-examination last session, you were asked to take the total car miles of 129,896, as shown in Exhibit No. 6, and divide it into the total ton mileage of lignite, of 2,318,345, which I believe you stated gave 17.85 tons as the average loading of lignite coal cars. You were then asked to take the total loaded and empty car mileage on all traffic in the state of North Dakota, of 57,408,931 miles, as shown in your Exhibit No. 6, and divide that into the revenue ton miles, 755,194,487, upon all traffic in the state of North Dakota, as shown on your Exhibit No. 2, which gave 13.15 tons, the average load per car on all traffic. Now, I ask you if the basis as shown by these figures, as

given on cross-examination, meets with your approval as a means of showing the average loading of lignite coal in North Dakota, and the average loading of all cars in North Dakota, and if it does not, state your reasons for objecting to the same. I do not mean by my question to adopt the theory as the proper theory, but conceding, at the present time, without questioning that theory, are the results secured by the calculations made by you a proper result even under that theory? A. The total average for the load is based upon the revenue ton miles. To obtain the total average loading properly, I think that to the revenue ton miles should be added the non-revenue ton miles carried in the cars, so as to get the total weight of the live freight in the cars. The figure that should be added to 755,194,487 is 183,734,516, which makes the total loading of the cars 938,929,003, which is the proper dividend to be used in arriving at the average load for all of the cars and all of the traffic in North Dakota, which makes an average of 16.36, instead of 13.15. This makes an average of 16.36 for all loads, as against 17.85 tons for lignite coal, and instead of having a difference between the average of all movements and the lignite coal movement of 4.70, the average difference is 1.49 tons. Now, that is very readily explained for the reason that in working all of the cars we have to take into consideration all of the light loading, which involves all of the peddler cars, way freight movements, etc., and the fact that on the branch lines, and especially towards the end of the lines, the loading of these cars becomes very light.

Q. I don't know as it clearly appears in your answer, Mr. Martin, what the figures 183,734,516 repre-

sent. A. It represents the non-revenue freight tonnage hauled in the cars.

Mr. Armstrong: That is all.

RE-CROSS-EXAMINATION.

By Mr. Young:

Q. Mr. Martin, the 183,724,516 ton miles of company material carried was all company material? A. Why, I don't know that it was all company material, but the non-revenue freight is very largely company material.

Q. Do you know how much of this was hauled for the passenger account? A. No, I don't know how much of it was hauled for the passenger account, but it does not make any difference when you are merely working an average load in the car what it was hauled for.

Q. Did you make any allowance for the passenger portion per cent of company material on freight trains, when you made your division between freight and passenger? A. In making the division between freight and passenger as shown in the operating expense statement?

Q. Yes. A. Now, the tonnage of trains were all handled as freight tonnage—all freight trains. It does not make any difference if you are figuring an average so as to find what the average loading of freight cars is. That is all this amounts to. Average loading of freight cars.

Q. Now, Mr. Martin, we asked you to file a statement showing your total passenger and freight expenses by primary accounting divisions, and also the main line and branch line separately. A. I have three

sheets here on our regular form, headed State of Operating expenses, on which are shown the figures by accounting division, and between passenger and freight for the primary accounts in operating expenses.

(Statements are produced and delivered to counsel for the state.)

Q. You were also asked, Mr. Martin, to produce the wage schedules showing the agreement between the company and the train employees. Are you ready to file this? A. Yes, sir, I have here the three schedules, one for employees in the train service, which was marked as effective April 1, 1907; for engineers, effective Dec. 1, 1909, and for firemen, effective May 16, 1910. These schedules are the schedules which were in effect during the year ended June 30, 1911, for which my figures were made, excepting during the year, and, as of December 24, 1910, there was a supplement to the engineer's schedule which materially increased the rate of wages, so that the increased rate of wages which is now in effect, and which was in effect for the last half of the period for which I made my figures was not in effect during the first half of that period.

(Wage schedules are handed to counsel for the state.) The train men's schedule and the engineer's schedule has the supplementary increased rate effective December 24, 1910.

Q. Will you state, Mr. Martin, how you divided your switching expenses, or yard service between freight and passenger? A. The expenses are divided actually in the large yards, wherever the engines are working as exclusive freight and exclusive passenger. In the smaller yards where an engine is handling both

kinds of business, our practice is to have a record kept for a period of time to show about how much of the time is passenger, as for instance, ten per cent, and then the yard expense is divided between freight and passenger for a period on that basis. After the expiration of a certain period, or if there should be any change in the yard arrangements, we keep another record for a period of time to give us a new basis to work on.

Mr. Young: So far as we know now, we will not need to examine Mr. Martin any further, but it may be that there will be some computations based on the figures submitted that would necessitate recalling him for a few questions, but very few, if any.

Mr. Armstrong: With the understanding that the privilege of re-direct examination extends to me so far as is concerned any examination based upon the statements submitted.

Mr. Young: Oh, yes.

Mr. Martin was then dismissed from further examination at this time.

J. A. LITTLE,

called to testify as a witness on behalf of the plaintiff, being duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION.

By Mr. Young:

(Papers produced, and marked Plaintiff's Exhibit No. 2-a, Plaintiff's Exhibit No. 2-b, Plaintiff's Exhibit No. 2-c, Plaintiff's Exhibit No. 2-d, Plaintiff's Exhibit No. 2-e, and Plaintiff's Exhibit No. 2-f, for identification, by the reporter.)

Q. Mr. Little, you may state what position, if any, you now hold. A. I am rate expert and statistician for the Railroad and Warehouse Commission of North Dakota.

Q. And how long have you held that position? A. About ten months.

Q. Have you held similar positions before? A. Well, I have held positions with similar duties. The position I held prior to that time for about two years was that of traffic manager for the Superior Commercial Club, Superior, Minnesota, in which I handled rate matters and made statistical compilations in many rate cases.

Q. Have you made a study of railroad rates? A. I have.

Q. And as a part of your duties as expert and statistician for the North Dakota Railroad Commission, have you made a special study of the lignite coal rates for the state of North Dakota? A. I have.

Q. Have you anything further to say with reference to your study of railroad rate matters, which qualifies you to testify, as a witness, on the subject of rates? A. Prior to my entering the service of the Superior Commercial Club, I was employed in the operating and accounting department of the Great Northern Railway for about three years, my duties being for most of the time that of a station agent. In one case at a way station, and in the other case at an intermediate terminal, where I had something to do with train operation. I have also made quite a study of accounting matters, and have studied particularly the methods used in attempting to ascertain railroad costs.

Q. Now, in preparing for the trial of these lignite coal rate cases, did you, in connection with your duties

with the North Dakota Commission, make any request of the Northern Pacific Railway Company for certain figures and information relative to the lignite coal traffic? A. I did.

Q. You may examine Plaintiff's Exhibit No. 2-a, and state if that is a tabulation that was furnished in response to a request made by you and the Railroad Commission. A. It was, yes.

Q. What does that exhibit show? A. That exhibit shows the amounts charged to the various operating accounts for the Northern Pacific Railway Company, covering four years ending June 30, 1908, 1909, 1910 and 1911, showing in the figures for 1911 the amounts that were allocated directly to the state, and those that were divided between the state of North Dakota and other states on an arbitrary basis. This statement covers all of the operating expenses accounts, showing all of the details under five general accounts.

Q. And what is marked here as Exhibit 2-b is a continuation and completion of Exhibit No. 2-a, is it? A. What I stated as to Exhibit No. 2-a applies to both Exhibits No. 2-a and 2-b. They belong to the same account.

Q. You may examine Plaintiff's Exhibit No. 2-c, and state what that exhibit shows. A. Plaintiff's Exhibit No. 2-c shows the traffic expenses of the Northern Pacific Railway Company for the entire line for the year ending June 30, 1911, in which they show the direct charges to the freight traffic expense, to passenger traffic expense, and to those expenses which are common to both freight and passenger traffic departments.

Q. You may examine Plaintiff's Exhibit No. 2-d, and state what that exhibit shows. A. Plaintiff's

Exhibit No. 2-d shows the transportation expenses for the state of North Dakota for the year ending June 30, 1911, and shows the total expenses for the accounts comprising the general account, and a division of each account between freight and passenger.

Q. Examine Plaintiff's Exhibit No. 2-e, and state what that shows. A. Plaintiff's Exhibit No. 2-e shows the station employes expense for the state of North Dakota for the year ending June 30, 1911, and shows the amounts charged to this account at stations where the employes handled both freight and passenger business indiscriminately. That is, where the account, or the expense was common to both classes of business. It also shows, for the larger stations where separate freight and passenger station is maintained, the expenses that were properly chargeable to freight directly, and those properly chargeable to passenger directly, and those that were incurred in common for both freight and passenger business at these stations.

Q. You may examine Plaintiff's Exhibit No. 2-f, and state what that shows. A. Plaintiff's Exhibit No. 2-f is a pamphlet entitled classification of train, engine and car miles and rules for apportioning the operating expenses to accounting divisions and dividing between passenger and freight.

Q. You may now examine Pages 23, 24 and 25 and 26 of the Exhibit and state what those pages show. A. Pages 23, 24, 25 and 26 show the rules for dividing the common operating expenses between passenger and freight.

Q. Those are rules of the Northern Pacific Railroad Company? A. Yes.

Q. All of these exhibits, 2-a to 2-f, inclusive, were furnished, were they, by the Northern Pacific Railroad

Company, upon request of the Railroad Commission of North Dakota? A. They were.

Mr. Young: Plaintiff offers in evidence Plaintiff's Exhibits No. 2-a, to 2-e, inclusive, and all of the printed matter on Pages 23, 24, 25 and 26 of the Plaintiff's Exhibit No. 2-f.

(Blue prints produced, and marked Plaintiff's Exhibit No. 3, for identification, by the reporter, the exhibit consisting of five sheets, marked 1 to five, inclusive.)

Q. You may examine Plaintiff's Exhibit No. 3, and state what that exhibit purports to show. A. Plaintiff's Exhibit 3 is a statement of a method of dividing the operating expenses of a carrier between the freight and passenger business. It shows in detail the basis for the division for each of the 116 accounts comprising the total operating expenses.

Q. Whose method is this, Mr. Little? A. This method is the method that was introduced by witness Ney on behalf of the Rock Island Railway Company in case No. I. C. C. Docket 3500, commonly known as the Western Advanced Rate Case. It was introduced on Page 1042 of the record in that case. Exhibit 3 is copied from the printed record of the testimony and exhibits in that case, which was printed in Washington as a result of a senate resolution so providing. I understand from the testimony in that case that this method was used in the so-called Nebraska Rate case, by Mr. Ney, when testifying on behalf of the Rock Island Railway Company. As I understand the Nebraska rate case, it was a case presenting the same questions with reference to a general schedule of rates in Nebraska as is presented in this case as to one schedule of rates. I might say that in introducing this ex-

hibit, and it appears on the exhibit as shown in the second sheet of Exhibit No. 3, that this was the formula employed in the Nebraska Rate case. This Nebraska case is not the case of Smith vs. Ames, but a later case, which, I understand, is now pending.

Q. Have you, in this case, Mr. Little, made a division of expenses between freight and passenger, with a view to determining the ultimate cost of handling lignite coal traffic in the state of North Dakota, on the Northern Pacific Road? A. I have made such computation, attempting to deduce from certain statistics what is the probable cost.

Q. And in working out this division, what method, generally, have you used? A. In the separation of the expenses between freight and passenger, I have followed the method shown in Exhibit No. 3, in most cases. In each case we asked in our request of the carriers, for certain information which would be of service for making the separation between freight and passenger business on the basis outlined by Ney's method. In the case of some of the accounts, on account of the difficulty in collecting the information that we would require for his method of division, we have used some other that seemed to me to closely approximate his method. Wherever there is a variation from his method in the separation, I have usually made a notation at the bottom of the page which shows where that variation is.

Q. In making this division you have taken each general account separately, have you, and have made a division not only as to the general accounts, but as to the primary accounts making up the general accounts? A. I have, yes, sir.

Q. You have then made such a division for the account of Maintenance of Way and Structures, have you? A. I have.

Q. That is, in the Northern Pacific case? A. That is in the Northern Pacific Case.

(Paper produced, and marked Plaintiff's Exhibit No. 4, for identification, by the reporter.)

Q. You may examine Plaintiff's Exhibit No. 4, and state if that is the division which you have made for that account? A. It is.

(Papers produced, and marked Plaintiff's Exhibit No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11 and No. 12, for identification, by the reporter.)

Q. You may explain the division which you have made in this account as to the Primary Account, Superintendence, Maintenance of Way and Structures. A. Dividing the account of Superintendence, Maintenance of Way and Structures, we used the method shown in Exhibit No. 3 as Basis No. 1, which allots 90 per cent of the charge for division on the basis of the total freight and passenger operating revenue, and ten per cent on the basis of the freight and passenger train mileage.

Q. The Primary Account, Ballast? A. Ballast is divided in the same way as Superintendence.

Q. Explain the division as to the Tie Account. A. It is here divided on the Basis No. 2, which allots sixty-six and two-thirds per cent of the total charge to be divided on the basis of the total freight and passenger operating revenue, and thirty-three and one-third per cent on the basis of the freight and passenger train mileage.

Q. How is the Rail Account divided? A. Rails are divided as shown in Basis No. 3, on the basis of the

freight and passenger train mileage, switching mileage included with freight.

Q. The Other Track Material Account? A. Other Track Material is divided on the same basis as Superintendence, which gives ninety per cent of the total charge for division on the basis of freight and passenger operating revenues and ten per cent on the basis of the freight and passenger train miles.

Q. How is the Roadway and Track Account divided? A. Roadway and Track is divided in the same way.

Q. The Removal of Snow, Sand and Ice? A. In the same way as above outlined for Other Track Material.

Q. Bridges, Trestles and Culverts? A. Bridges, Trestles are divided on the same basis.

Q. Explain the division of the next account, Over and Under Grade Crossings. Is that divided on the same basis? A. That is divided on the basis shown as No. 4, which separates the charges by the use of total freight and passenger operating revenue.

Q. As Basis No. 4, in Exhibit No. 3? A. As Basis No. 4 in Exhibit No. 3.

Q. How did you divide the Grade Crossings, Fences, etc.? A. On the same basis as Over and Under Grade Crossings, which I have just explained.

Q. Snow and Sand Fences and Snow Sheds. A. Also divided on that same basis.

Q. Is the next account divided on the same basis? Signals and Interlocking Plants? A. This is divided on what is shown as Basis No. 1.

Q. Buildings, Fixtures and Grounds, Telegraph and Telephone Lines? A. Divided on Basis No. 4.

Q. Both Accounts? A. Yes, sir, both accounts.

Q. And the Account, Roadway Tools and Supplies? A. On Basis No. 1.

Q. The Account, Injuries to Persons? A. Basis No. 5.

Q. Stationery and Printing, how is that divided? A. Basis No. 4.

Q. And Other Expenses? A. Basis No. 4.

Q. Using these various bases for the primary accounts, you arrived at the results shown opposite the item of Totals, do you, on Exhibit No. 4? A. I do.

Q. Charging $662,272.02 to freight, and $365,044.08 to passenger? A. Yes.

Q. Have you likewise made a division of the Account, Maintenance of Equipment? A. I have.

Q. And have separated each of the primary accounts in a similar manner? A. They were separated as shown in Exhibit No. 3, adopting, in most cases, I think, the figures given by the Northern Pacific Railway Company, which I believe, agrees with that method, or agrees very closely with it. The item of Repairs—

Q. (Interrupting witness.) Just a moment. This division in the General Account, Maintenance of Equipment is the one shown in Plaintiff's Exhibit No. 5, is it? A. Yes sir.

Q. You may explain the division which you have made in the Primary Account, Superintendence, Maintenance of Equipment. A. That was divided on Basis No. 6.

Q. You may go ahead and explain the division of each of the primary accounts, Mr. Little, as shown on Exhibit No. 5. A. Steam Locomotive repairs, Renewals and Depreciation were divided on Basis No. 7. Passenger train Cars Repairs, Renewals and Deprecia-

tion were charged to passenger directly. Freight Train car repairs, Renewals and Depreciation were all charged to freight. Work Equipment Repairs, Renewals and Depreciation were divided on Basis No. 5. Shop Machinery and Tools, Injuries to Persons, Stationery and Printing, and Other Expenses were all divided on Basis No. 6, and Maintaining Joint equipment at terminals, Dr. and Cr. to the same account, are divided on Basis No. 7. Those two last accounts mentioned, there were no charges credited to these accounts.

Q. You mean there were no charges to these accounts in the operating expenses for North Dakota for that year? A. Yes, sir, no charges.

Q. Then your division of the Maintenance of Equipment general account, assigns a total to freight of $775,330.95, and $392,061.88 to passenger? A. Yes, sir. When I stated that I used the Northern Pacific figures which were furnished on request for certain information, it appears that the figures which I used, as furnished, were the direct charges to freight and passenger, covering the items of expense shown as freight train cars repairs, renewals and depreciation, and Passenger Train Car Repairs, Renewals and Depreciation. The other expenses which were common to both classes of business were divided according to the methods outlined in Exhibit No. 3.

Q. The totals for each primary account, which you have divided in Exhibits No. 4 and 5, were obtained by you from what source? A. The totals as shown in these exhibits agree with the totals in the statements furnished by the Northern Pacific Railway Company covering the total charges to those accounts, as shown in the Exhibit filed as Exhibits 2-a and 2b, I think, un-

der the headings of Maintenance of Way and Structures, and Maintenance of Equipment.

Q. And they are the totals for the state of North Dakota, being the entire line, are they? A. For the state of North Dakota as determined in Exhibits No. 2-a and 2-b.

Q. Wherever, in your testimony, you refer to a certain basis, you refer to the basis mentioned in Plaintiff's Exhibit No. 3, do you? A. I do.

(It being noon, recess was here taken until two o'clock P. M.)

Hearing resumed at 2:00 P. M. Present the attorneys for the plaintiff, and the attorneys for the respective defendants.

Mr. Little on the stand.

DIRECT EXAMINATION CONTINUED.

By Mr. Young:

Q. Now, Mr. Little, in the same way did you make a division between freight and passenger of the general account of Traffic Expenses? A. In the case of Traffic Expenses we did not use the method which Mr. Ney laid down, and we have introduced as Exhibit No. 3, for the reason that there seemed to be a great many common expenses for the traffic departments which are not charged directly, as would be necessary in order to follow Mr. Ney's method.

Q. Is the separation to which you refer the one shown on Plaintiff's Exhibit No. 6? A. Yes, the note on Exhibit No. 6 states how the separation of traffic expenses was arrived at for that exhibit.

Q. Now, beginning with the account, Superintendence, Traffic Expenses, you may explain, your method

of division of the several primary accounts. A. The method of separating the item of Superintendence, and, in fact, all other items of that account, was to take the entire line traffic expenses as stated by the Northern Pacific on requisition, in which it was shown that certain amounts were chargeable directly to freight and passenger, and another amount was chargeable to both freight and passenger, and find the proportion of the direct charges to freight and passenger on the total direct charges to the two classes of business, and use that figure in dividing the accounts for North Dakota.

Q. Did I understand you to say that you used the same method, or applied the same method to all of the primary accounts making up this general account? A. Applied the same method.

Q. And the net result of this division is an allocation to freight of $68,850.41, and to passenger, $103,-146.80? A. It is, yes, sir.

Q. Did you make a division between freight and passenger of the expenses under the account, Conducting Transportation, for the Northern Pacific? A. A great many of the accounts under Conducting Transportation, or, as it is now called, transportation expenses, can be actually segregated as between the freight and passenger business. We requested the Northern Pacific to state the actual expenses in every case where the amounts could be segregated and charged directly to the two classes of business.

Q. Then you did make a division wherever the expenses were not charged directly to freight or passenger? A. Yes.

Q. And is this division and direct separation as

to primary accounts shown in Exhibit No. 7? A. It is.

Q. Now, if you care to explain any of the primary accounts shown on that exhibit you may do so, Mr. Little. A. On the item of train supplies and expenses, as I understand the Northern Pacific method of dividing between freight and passenger, as stated in one of our exhibits, which was filed—I don't remember the number—(referring to papers) Exhibit 2-f,—in exhibit 2-f, showed that the train supplies and expenses were not charged directly to the two classes of business, and not having the direct charges as called for in Mr. Ney's method, we used the Basis No. 13 of this method, which I think is the revenue train mileage. As to all other items where the expenses were not charged directly to the freight and passenger business, we followed the Ney method, or accepted the separation of the Northern Pacific where that method coincided with the Ney method.

Q. Have you anything further to add regarding Exhibit No. 7? A. I believe that a comparison of Exhibit No. 7 with Exhibit 2-d, which is a statement or separation of transportation expenses between freight and passenger, furnished by the Northern Pacific, it will be seen that the method used in Exhibit 7 charges more to freight than would be charged under the Northern Pacific division on Exhibit No. 2-d.

Q. Where your figures, then, differ from the Northern Pacific figures, freight is charged with heavier expenses in this account? A. Freight is charged with heavier expenses than was charged by the Northern Pacific.

Q. Did you make a division of the general expenses as between freight and passenger? A. I did.

Q. And your division is shown by Exhibit No. 8, is it? A. Yes, sir.

Q. Did you make a division of the primary accounts in making up these general accounts? A. Each of the primary accounts was divided on the same basis.

Q. On what basis? A. Gross revenues being used in each case.

Q. What basis did you say? A. Which is the basis used by Exhibit No. 3. I think that Exhibit No. 3 only shows one of the general expenses.

Q. You refer to the basis used by you for dividing the general expenses? A. Yes, I refer to the basis used by me for dividing the general expenses, which is Basis No. 4 of Mr. Ney's method, basis No. 4 being gross revenue.

Q. The result of your division is that freight is charged with $102,503.83 of the general expenses, and passenger with $49,129.06? A. That is the result, yes, sir.

Q. You may examine Plaintiff's Exhibit No. 9, Mr. Little, and state what that purports to show. A. Exhibit No. 9 brings forward the total amounts assigned in the preceding exhibits under the five general accounts, to freight and passenger, and states the taxes for the year ending June 30, 1911, and makes a division, or rather assigns to the freight business the proportion of the taxes which the freight gross earnings bear to the total gross earnings.

Q. For North Dakota? A. For North Dakota, and shows the total operating expenses charged to freight and the taxes assigned to freight in that manner, and

the total of both freight expenses and taxes assigned in that way.

Q. It is really a summary, then, of Exhibits No. 4, No. 5, No. 6, No. 7 and No. 8, with the added item of taxes? A. Yes, sir. It is.

Q. And according to this exhibit you charge freight with a total expense of $3,632,551.91? A. Yes, sir, total expenses for both operating expenses and taxes.

Q. That is in North Dakota? A. That is in North Dakota.

Q. Now, you may examine Plaintiff's Exhibit No. 10, and state in general what that purports to show. A. Exhibit No. 10 is a grouping of the primary accounts under the heading of Transportation or Transportation Expenses, which assigns certain of these primary accounts as terminal expenses, certain other of these accounts as movement expenses which are greater for local than for through trains, and certain others of those accounts as movement expenses which do not vary between through and local trains.

Q. You may state the result of that grouping. A. That grouping charges a total of $364,617.90 to terminal, $1,007,572.49 as movement expenses which are greater for local than for through trains, and $388,001.73 as movement expenses which do not vary between through and local trains.

Q. As I understand it, the figures which are shown on Exhibit No. 10 are the same as are shown in Exhibit No. 7, where you make your division between freight and passenger in the several primary accounts there named? A. The figures are the same, but are simply graduated differently to show another division of these expenses. Simply reclassifying them into other groupings.

Q. You may now refer to Plaintiff's Exhibit No. 11, and state what that exhibit shows. A. Plaintiff's Exhibit No. 11 shows the tons, the ton miles, revenue, the average haul, and the rate per ton per mile in cents for the intrastate business, or interstate business originating or terminating in North Dakota, and the interstate business passing through North Dakota, and the totals for tons, ton miles and revenues for all these classes, the average haul of all classes, and the average rate per ton per mile in cents for all classes of business in North Dakota. It is simply a re-statement of the figures furnished by the Northern Pacific Railway Company on request.

Q. Showing the revenues assigned to North Dakota? A. Showing the actual revenues assigned to North Dakota, or actually earned in North Dakota where the shipment was local to North Dakota.

Q. And in addition the total ton miles assigned to North Dakota, the average haul of each class of freight assigned to North Dakota, the rate per ton per mile on this North Dakota traffic? A. Yes, sir.

Q. You may now examine Plaintiff's Exhibit No. 12, and state what that exhibit is. A. That is simply a copy of a portion of a statement furnished by the Northern Pacific Company, showing the tons, the ton miles, the Northern Pacific Revenue, the average rate per ton per mile, and the average haul on lignite coal in the state of North Dakota.

(Papers produced by the witness and marked Plaintiff's Exhibit No. 13, No. 14, No. 15, No. 16 and No. 17, for identification, by the reporter.)

Q. You may turn to Plaintiff's Exhibit No. 13, and explain what that shows. A. Exhibit No. 13 shows, first, the total operating expenses charged to

freight, the total transportation expenses charged to freight, the freight proportion of the maintenance of way and structures, the freight proportion of Maintenance of Equipment; the freight proportion of Traffic Expenses; the freight proportion of General Expenses, and the freight proportion of taxes, and the total operating expenses and taxes charged to freight, all of which figures are to be found on Exhibit No. 9, and are simply re-stated and carried forward from that exhibit. It also shows the total of freight transportation expense accounts treated as terminal charges, as shown by Exhibit No. 10, the total freight movement expenses which vary as between through and local traffic, as shown by Exhibit No. 10, and the total freight movement expenses which do not vary as between through and local traffic as shown by Exhibit No. 10, and the ratio of the terminal expenses shown on Exhibit No. 10 to the total of all transportation expenses.

Q. As shown in the first item of Exhibit No. 13, or, rather, as shown in the second item of Exhibit No. 13? A. Yes.

Q. There is nothing further you wish to state regarding this exhibit? A. No.

Q. Referring to Plaintiff's Exhibit No. 14, you may state what that shows. A. It shows the total tons one mile, state and interstate handled in North Dakota as shown by Exhibit No. 11.

Q. What do you mean there by interstate, that part of the interstate traffic which is assigned to North Dakota? A. That part of the interstate that is assigned to North Dakota, yes. The tons per average loaded car of all freight, as shown by Northern Pacific Exhibit No. 22, Johnson, the revenue car miles,

the revenue loaded car miles shown by Exhibit No. 25 introduced by the Northern Pacific in connection with the testimony of the witness, Johnson, and the average haul for all revenue freight as per Exhibit No. 11; the number of cars handled, which is derived from a computation which is shown in connection with that item; the gross tons per average loaded car of all freight, and the method of arriving at the number of gross tons for the average car; the gross ton miles made in revenue service, and the method of arriving at that figure, and the gross tons per car of lignite coal, and the method of arriving at that figure.

Q. You may refer to Plaintiff's Exhibit No. 15, and state what that shows, Mr. Little. A. Plaintiff's Exhibit No. 15 shows the transportation expenses for the terminal service on the freight business.

Q. You may explain the first item of Exhibit No. 14. A. The first item in Exhibit No. 14 is the total tons of state and interstate freight handled in North Dakota, as per Exhibit No. 11.

Q. Now, you may explain Exhibit No. 15. A. The first item shows the transportation expenses for terminal service on freight business.

(Correction was here requested to be made in Exhibit No. 14, first item, by striking out the words "one mile" so that it will read, "Total miles, state and interstate, etc.")

Q. That has already been done, has it? A. That has already been done in Exhibit No. 13, and in Exhibit No. 10, and the taxes assigned to terminals which is the per cent that the terminal transportation expense bears to the total of all transportation expenses, and other expenses for terminal service, which

is the per cent, which the terminal expense for transportation expense bears to the total transportation expense, that percentage of all other general accounts being taken for other expenses assignable to terminals. It also shows, based on the figure for cars handled, shown in Exhibit No. 14, and the total terminal cost stated above, the average cost per car handled, and the cost per ton for lignite coal, and the method by which it is arrived at.

Q. The $3.96 which you show in the next to the last item in this exhibit applies to all of the intrastate freight, does it? A. It is an average cost per loaded car for the business handled under the average conditions in the state both state and interstate.

Q. And you apply that average for all the business to the lignite business? A. It is spread over the larger tonnage in the lignite coal car, to arrive at a cost per ton for the terminal service.

Q. Referring to Plaintiff's Exhibit No. 16, you may explain what that shows. A. Exhibit No. 16 shows the movement costs which vary as between through and local, which are derived from Exhibit No. 10, under the heading of Transportation expenses, which vary as between Through and Local, and the cost per gross ton per mile for this variable expense on the average traffic, and the method of arriving at that is shown. The method of computation is shown on the exhibit. The cost per loaded car mile of lignite at the cost of the average traffic is deduced from this figure, and the cost per revenue ton on that basis is also deduced, and the method of determining that cost is shown. Then a cost on the basis of local handling, which is assumed to be twice as expensive as the through business, is determined by doubling the aver-

age cost per revenue ton per mile, adjusted to the conditions of the lignite movement. It also states the cost which does not vary between the through and local business, the first item being transportation expenses; the second item being taxes, the amount assigned representing the total taxes, minus the amount assigned in Exhibit No. 15, to terminals, and, in addition, the balance of all other primary accounts not assigned to the terminal expense.

Q. What is the total item shown at the end of this exhibit? A. The total expense which it is held in this exhibit does not vary in cost as between through and local, is $1,872,776.49. That total cost is then spread over the gross ton mileage for loaded movement in the state, to arrive at a cost per gross ton.

Q. You are referring, now, to the second page of this exhibit? A. The second page of Exhibit No. 16. The cost per gross ton for business—for that class of expenses which do not vary as between through and local trains. This cost per gross ton is applied on the gross tonnage for the average car of lignite coal, to obtain a cost per loaded car of lignite coal and the cost per loaded car mile of lignite is then spread over the net revenue tonnage to obtain a cost per net ton of the load in that car. Then the costs per revenue ton for movement, assuming that the cost for the variable expenses is the same on lignite as on the average of all business in North Dakota, is shown in the second statement from the bottom on the second page of that exhibit, to which is added the average cost for those expenses which do not vary on that traffic, to obtain a total cost for movement per ton mile on the lignite coal business. The second statement is made, in which it is assumed that the lignite business costs twice as

much as the average of all the traffic per ton per mile in the state of North Dakota, for variable costs and cost the same on those expenses which do not vary between the two classes of train service, through and local, and a total cost per ton per mile for revenue freight is arrived at on that basis. The cost, on the assumption that it cost the same to handle lignite as the average of all traffic, is 3.03 mills ($0.00303) per ton mile, and the cost on the basis that it cost twice as much for certain of the transportation expenses, for lignite than for the average of all traffic, is 4.09 mills per revenue ton mile.

Q. You may now refer to Plaintiff's Exhibit No. 17, and state what that exhibit shows. A. Exhibit No. 17 shows certain distances over ten miles, from ten to one hundred miles, and the statutory rates on lignite coal for those distances, and the cost on the basis of lignite coal being not more expensive than the average of all traffic in the state, and also on the assumption that it costs twice as much for certain of the transportation expenses in handling lignite as in handling the average of all traffic. The cost for each distance is determined by taking the average cost per ton for terminal service, and adding to that the cost for the distance of movement expenses determined on one basis or the other, that is, either on the basis of that traffic having a cost the same as the average for all business in the state, or having a cost more than the average for all business in the state, for certain of the transportation expenses.

Q. The figures to which you refer there are those which you deduced from your computation shown in Exhibit No. 16? A. In Exhibits Nos. 13 to 16, in-

clusive. Those figures all bear on the subject, but particularly Exhibits No. 15 and No. 16.

Q. You may state, if the figures which you show in Exhibit No. 17, the next to the last column, include all expenses incident to the lignite coal traffic, if the basis there indicated for the cost of movement of that traffic is used. A. It does.

Q. And the same is true as to the last column if the higher basis of cost of movement is used? A. Yes, sir.

Q. You may now turn to Plaintiff's Exhibit No. 18, and state what that shows. A. Plaintiff's Exhibit No. 18 carries this same statement through distances reaching from one hundred to three hundred miles, starting with the cost for one hundred miles, and the statutory rate for one hundred miles shown on Exhibits 17, and adding the cost for movement, which was determined on the average traffic for both columns, on the assumption that anything over one hundred miles would be classified as through freight, or that class of traffic which is ordinarily considered to be the least expensive to handle.

Q. These exhibits, then, No. 17 and No. 18, show your conclusions as to the lignite traffic in North Dakota, so far as the Northern Pacific Road is concerned? A. It does.

Q. And the result of these tabulations is that the statutory rates prescribed by the Legislature are in each case greater than the cost of handling that traffic, is that correct? A. Yes.

Q. That is, for each distance covered by the tables? A. For each distance the statutory rate, on that basis of computation, is higher than the cost for operating expenses and taxes.

Mr. Young: The plaintiff now offers in evidence its Exhibits No. 3 to No. 18, inclusive.

(Blue Print Tables are produced by the witness, and marked Plaintiff's Exhibit No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26 and No. 27, for identification by the Reporter.)

Q. Mr. Little, did you prepare Exhibits making a division between freight and passenger of the expenses on the Minneapolis, St. Paul & Sault Ste. Marie Railway, for North Dakota? A. I did.

Q. And the exhibits prepared make a division, do they, of the freight and passenger business, by general accounts? A. By general and primary accounts.

Q. The division for the general accounts is made by the primary accounts originally? A. Yes.

Q. You may examine Plaintiff's Exhibit No. 19, and state if that is the separation made by you for the account, Maintenance of Way and Structures, for that road. A. It is.

Q. And in making this you used the same method used by you for the corresponding account as to the Northern Pacific, did you? A. Yes, sir.

Q. The only difference is in the figures which are taken from the totals furnished by the "Soo" road? A. Yes.

Q. And you followed the same method, did you, in making the division of Account Maintenance of Equipment? A. I did.

Q. That is shown by Plaintiff's Exhibit No. 20, is it? A. Yes, sir, it is.

Q. You may state the sources of the figures used in Exhibit No. 19. A. The figures used in Exhibit No. 19 are shown on Plaintiff's Exhibit 1-j, that is, the totals for the primary accounts under the general

account of Maintenance of Way and Structures are there shown. The division of expenses was made taking these primary accounts as the basis.

Q. And the basis used in dividing the primary accounts were just the same as the basis used for the corresponding primary accounts for the Northern Pacific, were they? A. They were.

Q. Plaintiff's Exihibt No. 20. State if the division there shown in the Maintenance of Equipment Account, was the same as for the corresponding accounts in the Northern Pacific figures. A. It is.

Q. The basis for the separation as to each primary account being the same as in the corresponding accounts of the Northern Pacific? A. Yes, sir, the total expenses for the primary accounts were obtained from Plaintiff's Exhibit 1-j.

Q. You may turn to Plaintiff's Exhibit No. 21, and state if that is your separation for the Soo road of the accounts comprising General Account, Traffic Expenses? A. It is.

Q. And the total figures which you separated for each primary account were furnished by the Soo road, were they? A. They were, and are to be found on Plaintiff's Exhibit 1-j.

Q. Did you use the same basis in the separation of each primary account that you used in the corresponding account for the Northern Pacific? A. I did.

Q. Turn to Plaintiff's Exhibit No. 22, and state if that is the separation of the primary accounts constituting the general account, Conducting Transportation, or Transportation Expenses. A. It is.

Q. Where did you get the total figures which you separated there, in the respective primary accounts? A. The total figures there separated appear on Plain-

tiff's Exhibit No. 1-k, and also on Plaintiff's Exhibit No. 1-f.

Q. And did you use the same methods that you used to make separation of the corresponding accounts in the Northern Pacific case? A. Generally, yes sir.

Q. If there are any differences, you may explain them. A. On the account Clearing Wrecks, under the head of Transportation Expenses, we used the figures furnished by the Soo Line as being a direct separation to the two classes of business. The Plaintiff's Exhibit No. 1-f, shows the Soo Line separation between freight and passenger, and in connection with that separation—

Q. That is of the Primary Account, Clearing Wrecks? A. On the account Conducting Transportation, it appears by Plaintiff's Exhibit 1-h that the account, clearing wrecks, is divided between the two classes of service actually, that is, no arbitrary method of separation is used. We therefore adopted their figures instead of the method laid down by Mr. Ney in Exhibit No. 3, as being closer approximation to the actual cost for the two classes of business.

Q. Aside from that your methods used were the same in making the separation of the several accounts? A. Yes, sir.

Q. Referring to Plaintiff's Exhibit No. 23, that represents, does it, your separation of the accounts making up the general account, General Expenses? A. It does.

Q. And where did you get the total figures from which you made your separation? A. They appear on Plaintiff's Exhibit No. 1-k.

Q. And did you use the same methods in separat-

ing in each primary account that you used in the Northern Pacific case? A. I did.

Q. You may turn to Plaintiff's Exhibit No. 24, and state if that is a summary of the separation made by you in Plaintiff's Exhibits No. 19, No. 20, No. 21, No. 22 and No. 23. A. It is a summary of the separations in these exhibits and states in addition thereto the taxes and a separation of the taxes, with the method used in separating the taxes as between freight and passenger, and the total of operating expenses and taxes assigned to freight.

Q. In brief, it represents for the Soo Road the same items shown in Plaintiff's Exhibit No. 9, for the Northern Pacific? A. It does.

Q. Referring to Plaintiff's Exhibit No. 25, you may state if that exhibit is in all respects similar to Plaintiff's Exhibit No. 10, except that the figures are those for the Soo Road instead of for the Northern Pacific. A. They are.

Q. And the purpose of the exhibit is to make the same showing as to the Soo Road that is shown by Exhibit No. 10 for the Northern Pacific? A. Yes, sir.

Q. Turning to Plaintiff's Exhibit No. 26, you may state if that exhibit shows, for the Soo Road, the same that is shown by Exhibit No. 11 for the Northern Pacific Road. A. It does.

Q. There appears to be some difference in the items shown there. Will you explain? A. It shows the same class of figures. It shows the intrastate and interstate freight without separating between the various classes of interstate freight, and without averaging the total of all classes of business handled in the state.

Q. Have you anything further you wish to state with reference to Exhibit No. 26? A. No.

Q. Referring to Plaintiff's Exhibit No. 27, what does that exhibit show? A. It shows the tons, ton miles, Soo Line revenue, average rate per ton per mile in cents, and the average haul of the lignite coal business handled by the Soo Line during the year ending June 30, 1911.

Q. That is, it shows for the Soo Line what Exhibit No. 12 shows for the Northern Pacific? A. Yes, sir.

(Papers produced and marked Plaintiff's Exhibit No. 28, Plaintiff's Exhibit No. 29, No. 30, No. 31 and No. 32, for identification, by the Reporter.)

Q. You may look at Plaintiff's Soo Line Exhibit No. 28, and state if that represents the same items for the Soo Road that were shown by Plaintiff's Exhibit No. 13 for the Northern Pacific? A. It does.

Q. The same items throughout? A. It does.

Q. The only charge being in the figures shown by the Soo Line reports? A. Yes, sir.

Q. You may state what Plaintiff's Exhibit No. 29 is. A. Plaintiff's Exhibit No. 29 shows the same figures for the Soo Line as for the Northern Pacific Corresponding Exhibit No. 14, with the exception that the first item represents the total tons one mile for state and interstate business, instead of the tons of state and interstate business.

Q. You show by this exhibit that the average haul for revenue freight on the Soo Line was 183.39 miles, as compared with 227.7 miles for the Northern Pacific. A. Yes.

Q. And the gross tons per car is 42, while the Northern Pacific shows 42.87? A. That is on lignite coal, but right there I want to say that we used an

estimate loading of 26 tons, because in none of the exhibits introduced by the Soo Line, or statements furnished the state, had we the average loading per car of lignite coal. That has since been introduced, and is, as I remember, 27 tons per loaded car, which would slightly alter the figures later arrived at. I think, too, that I ought to call attention to the fact that the tons of revenue freight per loaded car which we obtained from the annual report to the Commission, and shows, on Exhibit No. 29, as 14.26 tons, is not computed, as I understand it, in the same way that the Northern Pacific arrived at their figure.

Q. But in each case you have taken the figures submitted by the respective roads? A. Yes. It is probable that the figures arrived at for the Soo Line in the same way that the Northern Pacific arrived at their figures, would show a slightly heavier loading per car, which would also reduce the average figures later on arrived at, because of the fact that this average load per car of 14.36 tons is the result of spreading on the total loaded car miles the revenue freight ton mileage only, while the addition of company freight and the assumption made in the Northern Pacific case that the revenue freight averaged the same as the total of the two classes would probably result in a higher figure, which would change the results and make them slightly lower, consequently lower the results arrived at as to the cost of the lignite traffic.

Q. The cost per ton per mile? A. The cost per ton for the distances arrived at in the later tables.

Q. You may explain Plaintiff's Soo Exhibit No. 30, and state if there you show the same item for the Soo Line that you showed for the Northern Pacific

by Exhibit No. 15. A. I did. The two exhibits correspond, I think, exactly.

Q. You show the total terminal cost for the Soo Line and the cost per average car handled, and the cost per ton of lignite coal? A. Yes, sir.

Q. The only variation being in the figures incident to the use of the Soo Line figures instead of the Northern Pacific? A. Yes, sir.

Q. Turning to Plaintiff's Exhibit No. 31, you may state what that shows. A. Exhibit No. 31 shows, for the Soo Line, the corresponding figures arrived at in Exhibit No. 16 for the Northern Pacific. In the case of the Soo Line we show, in addition to that shown in the Northern Pacific case, a local cost arrived at by adding fifty per cent of certain of the transportation expenses, taking in addition to the average expense, the fifty per cent more for these transportation expenses.

Q. To what transportation expenses do you refer? A. I refer to the transportation expenses that we have considered were variable between through and local traffic. In the first place, the cost per gross ton per mile for this variable expense, and in fact for all movement expenses would be affected, being lowered if the average car loading on the Soo Line were higher than 14.36 tons, and the cost per ton of revenue load for the lignite business would be lowered if I had used forty-three gross tons per car of lignite coal, instead of forty-two, the forty-two gross tons having been determined on an estimated basis.

Q. Will you explain why you used 150 per cent in the Soo case, while you used 200 per cent in the Northern Pacific case? A. In the case of the Soo Line, there is a very considerable part of the mile-

age of the road lying in the western part of the state, along the Missouri River, in a territory which is a light traffic producer, and in which the cost per ton handled would tend to bring the average per gross ton cost up above the average for the other roads in the state. Another factor was that practically seventy-five per cent of all the Soo Line mileage in North Dakota is branch-line mileage. About fifty per cent of that mileage is represented by the Missouri River Division. The result of operation on a railroad where seventy-five per cent of the mileage is branch-line, and fifty per cent of that mileage is in a territory similar to that in which the Missouri River Division lies, would undoubtedly reflect in the average figure for transportation expenses the higher cost for local and branch line business in the original averages, so it is not necessary to add as great a figure to determine the average cost for doing the local business. The Operating Expenses already reflected that condition in handling the business.

Q. You may turn now to Plaintiff's Exhibit No. 35, and state if that shows the result of the application of the factors arrived at in the foregoing exhibits, the same as Exhibit No. 17 shows the results for the Northern Pacific? A. It does. In connection with that statement, I want to say that changing the revenue tonnage per car as outlined in connection with the other exhibits would effect, and slightly reduce the costs for the distances as shown in the last two columns of the exhibit, to the right in the exhibit. Q. So that it would leave a greater margin per ton than is shown by the exhibit? A. It would widen the difference between the statutory rate and

the average cost for taxes and expenses, as determined in these exhibits.

Q. You have carried this only to a distance of one hundred miles? A. Yes.

Q. And have not shown the Soo Line results for a distance in excess of that? A. The average haul on the Soo Line is shown to be 92.76 miles, lower than in the case of either of the other roads in the state, and I show the statutory rate for the average haul and the cost of the basis of the fifty-mile cost on the two methods of computation. The great bulk of the lignite business on the Soo Line is between Wilton and Bismarck, an average haul of approximately 28 miles. In connection with the exhibits showing the adjustment for the difference between the through and local expenses, I might say that I also considered this factor in determining the addition of fifty per cent instead of one hundred per cent, and that was that between Wilton and Bismarck during the season when the lignite coal traffic moves the most freely, the train service is not a strictly local service. It is what is known as turn-around service, a train being run from Bismarck to Wilton taking a train-load of empties to the mine, and taking a train-load of coal from the mines to Bismarck, which is a character of operation which closely resembles that of the through service, the only difference being that the total train haul is somewhat shorter than that over an entire operating division.

Q. Is there anything further that you wish to state regarding any of the exhibits covering the Soo Line? A. I might also add that in connection with the statement of operating conditions on the Wilton Business of the Soo Line, that I checked the train sheets in

the office of the Superintendent of the Soo Road at Bismarck, and I found that during the months in which the lignite coal business is the heaviest, that those trains—the turn-around trains—were handling the bulk of the business.

Q. What months did your investigation cover? A. I checked the train sheets for about six months beginning, I think, with October, 1902, and the greatest volume of lignite moves during October, November, December and January, as I remember it.

Q. That is all you have to say in explanation of these exhibits, is it? A. Yes, sir.

Mr. Young: Plaintiff offers in evidence Plaintiff's Soo Line Exhibits No. 19 to 32, inclusive.

(Papers produced by the witness and marked, for identification by the reporter, Plaintiff's Exhibits No. 32, Plaintiff's Exhibit No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40 and No. 41; also another group marked Plaintiff's Exhibits No. 43, Plaintiff's Exhibit No. 44, No. 45, No. 46 and No. 47, inclusive; also another group of papers marked Plaintiff's Exhibits No. 48-a, No. 48-b, No. 48-c, No. 48-d, No. 48-e, No. 48-f, No. 48-g.)

Q. In preparing for the hearing in this case, did you make a request of the Great Northern Road to furnish certain information for the North Dakota Commission? A. I did.

Q. Was that information furnished by the Great Northern? A. It was.

Q. You may examine Plaintiff's Exhibit 48-a, and state what that is. A. That is a statement of tons, ton miles, average receipts per ton per mile, and the average distances hauled, of lignite coal traffic in the state of North Dakota.

Q. You may look at Plaintiff's Exhibit 48-b, and state what that is. A. Plaintiff's Exhibit No. 48-b is the rules for apportioning the operating expenses to accounting divisions, marked Article 3-c.

Q. And that consists of eight pages? A. Yes, sir.

Q. You may examine Plaintiff's Exhibit 48-c, and state what that is. A. Exhibit No. 48-c is Transportation Expenses in the State of North Dakota, year ended June 30, 1911, marked Article No. 4, showing the division between freight and passenger.

Q. That consists of one page? A. Yes, sir.

Q. You may examine Plaintiff's Exhibit No. 48-d, and state what that is. A. Plaintiff's Exhibit No. 48-d is the statement of the station expenses at Great Northern stations in North Dakota where a separate force of employees was employed to handle freight and passenger business.

Q. What is Plaintiff's Exhibit No. 48-e? A. Plaintiff's Exhibit No. 48-e is the statement of the whole line traffic expenses for the year ending June 30, 1911, marked Article No. 5.

Q. And Plaintiff's Exhibit No. 48-f? A. Plaintiff's Exhibit No. 48-f is a statement of locomotive, train and car mileage in North Dakota for four years ending June 30, 1911, items 8, 9 and 10.

Q. Plaintiff's Exhibit No. 48-g is what? A. A statement of interstate passenger train revenue for the year ending June 30, 1911, and statement of the method of alloting this revenue.

Q. What is Plaintiff's Exhibit No. 48-h? A. Plaintiff's Exhibit No. 48-h is a statement of the tons, ton miles, and the revenue on interstate freight business assigned to North Dakota for the year ending June 30, 1911.

Q. And Plaintiff's Exhibit No. 48-i? A. Plaintiff's Exhibit No. 48-i is a statement of business showing tonnage and revenue both state and interstate, tonnage and revenue of freight billed from branch line stations in North Dakota, marked S-314 in the lower left hand corner.

Q. Plaintiff's Exhibit No. 48-j shows what? A. This Exhibit is a statement of the tonnage and revenue on freight way-billed from stations on the Great Northern Railway during the fiscal year ending June 30, 1910, marked S-312 in the lower left hand corner.

Q. What is Plaintiff's Exhibit No. 48-k? A. Plaintiff's Exhibit No. 48-k is a statement marked S-313 in the lower left hand corner, showing the tonnage and revenue of both state and interstate freight way-billed from main line stations in North Dakota.

Q. What is Plaintiff's Exhibit No. 48-l? A. This exhibit is a statement showing the operating revenues local to North Dakota, which were received during the year ending June 30, 1911, 1910 and 1911, marked Item 1-a in the upper right hand corner.

Q. And you may explain Plaintiff's Exhibit No. 48-m. A. This exhibit, No. 48-m, is a statement of the lignite coal revenue, intrastate, for the years ending June 30, 1907 and 1911, marked Item 1-b in the upper right hand corner.

Q. Explain Plaintiff's Exhibit No. 48-n. A. Plaintiff's Exhibit No. 48-n is a statement showing the revenue from all intrastate coal shipments in North Dakota for the months of October, 1908, April, 1909, October, 1910, and April, 1911, marked S-303.

Q. Plaintiff's Exhibit No. 48-o. A. Plaintiff's Exhibit No. 48-o is a statement showing the interstate freight revenue in North Dakota for three years end-

ing June 30, 1909 to 1911, inclusive, marked Items 1-d and 1-e, consolidated, and S-307 in the lower left hand corner.

Q. Explain, now, Plaintiff's Exhibit No. 48-p. A. This exhibit is a statement of the method of alloting the interstate revenue to the state of North Dakota, marked Item 2.

Q. Plaintiff's Exhibit No. 48-q? A. Plaintiff's Exhibit No. 48-q is a statement of the Operating Expenses for the state of North Dakota in the years ending June 30, 1908 to 1911, inclusive, and marked Article 3-a and b in the upper right hand corner.

Q. Consisting of four sheets? A. Consisting of four sheets, yes, sir.

Q. Now, each of these exhibits, 48-a, 48-b and so on through to Exhibit 48-q, were received by your office in response to a demand for the information therein contained upon the Great Northern Railway, were they? A. Yes, sir, they were.

Q. Did you, preparatory to this hearing, make exhibits showing the separation of accounts comprising the five general accounts between freight and passenger for the Great Northern Railway, which is the same as you made it for the Northern Pacific and the Soo? A. Yes, sir.

Q. You may look at Plaintiff's Exhibits No. 33, 34, 35, 36 and 37, and state if these exhibits show, respectively, for the Great Northern, what is shown by Exhibits No. 4, 5, 6, 7 and 8 for the Northern Pacific. A. They are the corresponding exhibits based on the Great Northern figures.

Q. Was your separation of the primary accounts in each instance made according to the same basis that was used by you in making the separation of the

corresponding primary accounts for the Northern Pacific? A. Substantially. Wherever there was any variation from that method, a notation has been made at the bottom of the exhibit, showing in what account that variation occurs.

Q. And that clearly appears from that notation, does it? A. Yes, sir.

Q. One of the notations to which you refer is that at the bottom of Exhibit No. 36, is it? A. Yes, sir.

Q. Relating to Station Employees? A. Yes, that is the only statement on these pages.

Q. Except as to those indicated, you followed in detail the method used by you with reference to the Northern Pacific? A. Yes, sir.

Q. You may state if Exhibit No. 38 contains the same items for the Great Northern as is shown by Exhibit No. 9 for the Northern Pacific, that is, it summarizes the five preceding exhibits? A. Yes, sir, and adds the item of taxes.

Q. Exhibits 33 to 37, inclusive, and adds the item of taxes? A. Yes, sir.

Q. And Exhibit No. 39 shows, for the Great Northern what is shown by Exhibit No. 10 for the Northern Pacific? A. It does.

Q. And Exhibit No. 40 shows, for the Great Northern what is shown by Plaintiff's Exhibit No. 11 for the Northern Pacific? A. In Exhibit 40 I show substantially the same information that is shown in the corresponding Exhibit of the Soo Line, which is Exhibit No. 26. The figures furnished by the Great Northern in this case did not show the same details that the Northern Pacific showed as to interstate business.

Q. So that it agrees exactly in method with the

corresponding Exhibit of the Soo, Exhibit No. 26? A. There is no method to it. It simply shows the figures stated by the Great Northern in information filed in connection with the case.

By Mr. Armstrong:

Q. There is only this one of these exhibits which correspond with the Soo Line, instead of with the Northern Pacific? A. Yes, sir.

By Mr. Young:

Q. You may state what Exhibit No. 41 shows. A. Plaintiff's Exhibit No. 41 shows the figures for the lignite coal traffic in the state of North Dakota, corresponding to the other classes of traffic shown on Exhibit No. 40, and the exhibit corresponds, generally, with the Northern Pacific Exhibit No. 12.

Q. Showing the total number of tons, ton miles, revenue, average rate per ton per mile, and average haul of lignite coal on the Great Northern? A. Yes, sir.

(It was here stated, for the benefit of the record, that in marking the exhibits for identification, the number 42 had been omitted, so that there is no Plaintiff's Exhibit No. 42.)

Q. You may now examine Plaintiff's Exhibit No. 43, and state what that shows. A. Plaintiff's Exhibit No. 43 shows for the Great Northern the figures corresponding to the Northern Pacific Exhibit, Plaintiff's Exhibit No. 13, and Soo Line Exhibit, Plaintiff's Exhibit No. 28.

Q. You have no further explanations to make with reference to that, have you? A. No.

Q. You may explain Plaintiff's Exhibit No. 44. That exhibit shows what? A. That exhibit shows figures corresponding, on the Great Northern to the

figures shown for the Northern Pacific on Plaintiff's Exhibit No. 14, and for the Soo Line on Plaintiff's Exhibit No. 29.

Q. You may examine Plaintiff's Great Northern Exhibit No. 45, and state what that exhibit shows. A. This exhibit shows, for the Great Northern, the figures corresponding to the Northern Pacific figures shown on Plaintiff's Exhibit No. 16, and for the Soo Line in Plaintiff's Exhibit No. 30.

Q. And Plaintiff's Great Northern Exhibit No. 46 corresponds in detail with Plaintiff's Soo Line Exhibit No. 31, and Northern Pacific, Plaintiff's Exhibit No. 16, is that right? A. It does, yes, sir.

Q. You have shown all of the items, and no more? A. I have shown all of the corresponding items, yes, sir.

Q. You have determined, upon that exhibit, the average cost per revenue ton mile on both the lower and higher basis, as defined by you in your testimony relating to the Northern Pacific? A. I have.

Q. Now, you may examine Plaintiff's Great Northern Exhibit No. 47, and state what that exhibit shows. A. It corresponds in every way with Northern Pacific Exhibits, Plaintiff's Exhibits No. 17 and 18. It shows, on one page, what was shown on two pages in the case of the Northern Pacific.

Q. That is both covering the distances both under and over one hundred miles? A. Yes, sir.

Q. Up to two hundred and fifty miles, instead of three hundred miles as shown in Northern Pacific Exhibit, Plaintiff's Exhibit No. 18, and instead of one hundred miles as shown in Plaintiff's Exhibit No. 32? A. Yes, sir.

Q. According to that exhibit you show that the

cost per ton for moving the respective distances there shown is less than the statutory rate which has been prescribed, do you? A. In practically every instance. In one or two cases it shows a fraction of a cent more for the same distance.

Q. And that applies whether you use the higher or lower average for local? A. That is on the basis of the higher cost for local, and one or two instances it shows a fraction of a cent higher cost for conducting the lignite coal business than the statutory rate, but that is, in every instance, for distances over one hundred miles, and it is open to question whether or not for any part of that distance a higher average cost for local movement should be used. If the costs over one hundred miles which is assumed to be through business were used as shown in the middle column on Exhibit No. 47, in every instance the cost is lower than the statutory rate.

Q. Have you any further explanation you desire to offer with reference to any of the exhibits covering the lignite coal traffic on the Great Northern Railway in North Dakota? A. I have nothing that I can think of at this time.

Mr. Young: The Plaintiff now offers in evidence its Exhibits numbered No. 33 to 47, inclusive, excepting that there is no Exhibit No. 42 to offer, and further offers in evidence Plaintiff's Exhibits No. 48-a, No. 48-b, and so on through to Exhibit No. 48-q, inclusive, Exhibit No. 48-d consisting of eight sheets, and Exhibit No. 48-q consisting of four sheets.

An adjournment was, by agreement of the parties, here taken until 10:00 o'clock A. M., Monday, May 27, 1912.

(Title of Court and Cause).

The above entitled cause coming on for the purpose of taking testimony on the part of the several defendants and of the state, in the general offices of the Northern Pacific Railway Company, in the City of St. Paul, State of Minnesota, on the 1st day of July, A. D. 1912, the following stipulation, already made and entered into with respect to the hearings held hereinbefore in the above entitled case, was renewed and continued by the respective parties thereto:

Now, on this 1st day of July, A. D. 1912, the above entitled causes coming on for the purpose of taking testimony pursuant to the several stipulations heretofore entered into by and between the plaintiff, the State of North Dakota, and the defendants, and in pursuance of the order of the court heretofore made and entered, Andrew Miller, Attorney General of the State of North Dakota, and C. L. Young, Assistant Attorney General of said State of North Dakota, appearing on behalf of the plaintiff, and Chas. Donnelly appearing for the Northern Pacific Railway Company, J. D. Armstrong appearing on behalf of the Great Northern Railway Company, and John I. Dille appearing on behalf of the Minneapolis, St. Paul and Sault Ste. Marie Railway Company, the referee heretofore appointed by the Honorable Supreme Court of the State of North Dakota not being able to be present, it is hereby stipulated by and between the representatives of the state and the counsel for the several defendants, that, for the purpose of taking this testimony F. J. Gehan, a notary public in and for the County of Ramsey, State of Minnesota, shall act as notary public to swear the several witnesses, and all the evidence taken upon this hearing shall

have the same force and effect, and shall be used upon the trial of this cause with the same force and effect as though it had been taken before the referee hereinbefore named.

It is agreed that the testimony may be taken in shorthand by I. Mark Oseth, of Bismarck, North Dakota, and transcribed.

The recalling of the witnesses and the signature attached to the several depositions herein taken is hereby waived, and said evidence so taken shall be read with the same force and effect as though it had been subscribed and sworn to in the form of a deposition. The testimony taken in each action shall be considered to be taken in all actions, and may be read in all so far as applicable thereto.

Present, the Counsel for the State.

Present, the Counsel for the several defendants.

The following proceedings were then had:

MR. J. A. LITTLE,

a witness on behalf of the plaintiff, having been heretofore duly sworn, was recalled for further direct examination, and testified as follows:

EXAMINATION.

By Mr. Young:

Q. Mr. Little, have you made any comparisons between the legislative lignite coal rates and other rates on the defendant railroads in North Dakota, or for other territory in the vicinity of North Dakota? A. I have made such comparison as to rates in contiguous territory, on commodities of approximately the same value—low grade commodities.

Q. Did you make such comparison of rates that are in effect on the Soo Road? A. The comparison of rates on the Soo Road was based on the movement of field stone between points on the Missouri River Division of that road in the State of North Dakota, the Missouri River Division being a division on which most of the lignite coal is hauled within the state of North Dakota, as I understand the tonnage figures.

(Witness produces paper, which is marked Plaintiff's Exhibit No. 49, for identification, by the Reporter.)

Q. You may examine Plaintiff's Exhibit No. 49, and state if that is the comparison to which you have reference? A. (Witness examines paper.) Yes, sir, it is.

Q. You may examine that exhibit, and state what it is intended to show? A. Exhibit No. 49 shows, for the same distances, the rates on field stone compared with the rates on lignite coal which are established by the Legislature, are, or rather produced on the basis of the minimum car in all but one of the distances compared—that for ten miles— a higher car earning than that on field stone. For instance, at fifteen miles the earnings on a forty-thousand car of lignite coal would be seven dollars, while on field stone the earnings on the minimum car is six dollars. At eighty miles, for instance, the earnings on the forty-thousand capacity car of lignite coal would be eleven dollars, and on an eighty-thousand capacity car it would become nineteen dollars and eighty cents. For field stone the minimum earning would be six dollars, regardless of the size of the car used.

Q. Were the field stone rates voluntarily put into effect by the Soo Road? A. As I understand it.

Q. Are they in effect now on the Missouri River Division of that road? A. They are.

Q. That is the territory over which the lignite coal rates are in effect? A. Yes, sir.

Q. So that the operating conditions for the two commodities are the same? A. Substantially, yes, sir.

Q. Is field stone a commodity which would require about the same amount of handling? What would you say as to the expense of hauling? Would you say that the expense of hauling the stone would be about the same as the expense of hauling the lignite coal? A. Some elements of expense would be considerably greater, I should say. The average delay to cars handling field stone would probably be greater, because the run of field stone in that territory would include a lot of large stones, and both in loading and unloading, more time would probably be consumed than, for instance, in the loading of coal at such a point as Wilton, where probably all of it is loaded from a mine tipple by the gravity system. The time consumed in loading coal in that way would be very small as compared with the time required to load cars with field stone.

Q. Did you compare the legislative coal rates in a similar way with the rates in effect on the Northern Pacific on saw logs? A. I did. The comparison was made with the rates on saw logs, including all varieties except white oak as shown in Northern Pacific Tariff, I. C. C. No. 4330.

(Paper produced and marked, for identification, Plaintiff's Exhibit No. 50, by the Reporter.)

Q. You may examine Plaintiff's Exhibit No. 50,

and state if that is the prepared table to which you have reference. A. It is.

Q. And does that compare the results of the two rates, that is, the rates on lignite coal, and on saw logs, the same as Plaintiff's Exhibit No. 49 showed the result as between field stone and lignite coal? A. Yes, sir. All based on the minimum car earnings for the two classes of traffic.

Q. Are the saw log rates voluntarily put into effect by the Northern Pacific? A. So far as I know, they were.

Q. Where are they in effect, if at all, now? A. I think these rates in I. C. C. 4530 apply between points in Minnesota and Wisconsin, and between points in Minnesota involving an interstate haul.

Q. What would you say as to the comparative expense of hauling saw logs and lignite coal? A. Well, in the case of saw logs, usually special equipment is required. The car is fitted with chains, and there is absolutely no possibility of a return load. There is practically one hundred per cent of empty movement for every loaded haul, while in the case of lignite coal practically all of the traffic is handled in box cars, and there would be a chance of occasionally getting a return haul.

Q. How do the operating conditions generally compare in the territory where lignite coal rates are in effect and in the territory where these saw log rates are in effect? A. I cannot see any great possible difference. The traffic density—

Mr. Dille: (Interrupting witness.) Do you know where this rate is in effect? A. On logs?

Mr. Dille: Yes. A. Yes, sir. I know it is a Northern Minnesota proposition. The rates applying

in Northern Minnesota. I do not believe the conditions are materially different from those surrounding the handling of the lignite business.

By Mr. Young:

Q. Did you make any other tables comparing the rates between saw logs and lignite coal? A. I did.

(Paper produced by witness, and marked, for identification, Plaintiff's Exhibit No. 51, by the Reporter.)

Q. Is Plaintiff's Exhibit No. 51 the other table to which you have reference? A. It is.

Q. What does that show? That makes a similar comparison, to the preceding, between the car earnings on lignite coal and the car earnings on saw logs, except white oak, which would result from the application of rates found in Minnesota Railway Commission Tariff No. 429.

Q. Where are those saw log rates in effect? A. They are in effect only between points within the state of Minnesota.

Q. Did you make a table comparing the coal rates and rates on cordwood, pine and hardwood slabs? A. I did.

Q. Is Plaintiff's Exhibit No. 52 the one to which you refer?

(Paper produced and marked Plaintiff's Exhibit No. 52, for identification, by the Reporter.)

A. Plaintiff's Exhibit No. 52 shows the comparison between lignite earnings and the earnings on cordwood pine and hardwood slabs, and shingle bolts, which is Item 10, page 6, of Northern Pacific Tariff, I. C. C. 4364. These rates are rates made between points in Idaho and territory east of Spokane, to Spokane.

Q. What would you say as to the operating con-

ditions in the territory in which they are in effect, as compared with the territory in which the lignite coal rates are in effect? A. Judging from the topography of the Idaho territory, I should say that the cost of operation would be somewhat higher in that territory than in North Dakota.

Q. Did you also make a table showing the rates on hardwood logs, which are in effect on the Great Northern Road? A. I did.

(Paper produced, and marked, for identification, Plaintiff's Exhibit No. 53, by the Reporter.)

Q. You may examine Plaintiff's Exhibit No. 53, and state if that is the table to which you refer? A. (Examining paper.) It is. This statement compares the earnings on the minimum carload of lignite coal with the earnings on hardwood logs, based on the rates in minimum shown in Item 689, Great Northern, I. C. C. a-3255.

Q. Where are the hardwood log rates shown in the table, Exhibit No. 53, in effect? A. Between Central Avenue, Wisconsin, and points on the Great Northern in Minnesota, I think on the Mesabi Division.

Q. Are the operating conditions in the territory where these log rates are in effect more or less favorable for economical operation than in the lignite coal territory? A. Generally speaking, the conditions would be about similar. It is pretty hard to compare a little stretch of territory with a whole line of the Great Northern in the state. There would be no great difference, I should think.

Q. And would the expense of handling logs, or any of the commodities mentioned in these tables be similar to the expense of handling the lignite coal, in your judgment? A. Weight for weight, I cannot

see any reason why the cost of transporting lignite should be greater than that of transporting these other commodities.

Q. They are all commodities that are handled in carload lots? A. All carload rates, yes, sir.

By Mr. Young:

Plaintiff offers in evidence its Exhibits No. 49, No. 50, No. 51, No. 52 and No. 53. That is all.

CROSS-EXAMINATION.

By Mr. Donnelly:

Q. Referring to Exhibit No. 52, covering the rate on cordwood, pine and hardwood slabs, you say that that exhibit shows the rates applying to a movement in territory where the operation is more expensive than in North Dakota? A. Generally speaking, I should say it would be, for the reason that we know the grades in Idaho and Washington are usually considerably more than those in North Dakota, and because the cost of transporting a commodity in a mountainous territory, weight for weight, would naturally be somewhat in excess of that in the more level territory, because of the reduced tractive power of the locomotives.

Q. This covers the movement of these commodities from Idaho to Spokane? A. Yes, sir.

Q. West bound movement? A. Yes, sir.

Q. Isn't it entirely a down-hill movement? A. I am not sure about that, but my idea was it was a mountainous territory where the grade probably would not preponderate in the direction of Spokane. I do not know just what the charts would show.

Q. If it is in fact a down-grade movement, what

you state as to its being more expensive would not be true, would it? A. No, sir, it would not be true.

Q. Do you know as to whether the logs, the saw logs to which the rates referred to in Exhibits Nos. 50 and 51 apply, move in train loads or not? A. Well, usually they do.

Q. Speaking of the additional expense necessary to equipping cars for hauling these logs, furnishing such things as chains, that you spoke of, is that done by the carrier? A. I think you misunderstood me. I said that the cars were equipped with chains, and for that reason it would be practically impossible to get a return load. There would be practically one hundred per cent of empty haul in connection with that business. That was the additional expense item that I intended to refer to in that connection. The logs are moving all in one direction towards the mill or towards the factory.

Q. You mean that the presence of these chains would interfere, and the bunks would interfere with the use of the car for return loads, if return loads were available? A. Well, it might not interfere, but as a general proposition I know from experience in the territory that as a usual thing there is no return load.

Q. There is quite a considerable movement of the empties? A. The movement of cars to the point of loading is practically all empty. You very rarely see a log car used to carry out-bound freight. That seems to be the situation in Northern Minnesota.

Q. You are the rate expert and statistician for the North Dakota Railway Commission? A. Yes, sir.

Q. And had been for some ten months at the time you previously testified? A. Yes, sir.

Q. During the period of your employment by that

commission, I assume that you have devoted considerable part of your time to this case? A. I have.

Q. And you realized that the problem that was involved in this case was the question as to whether the total revenue yielded by the rates that are in controversy here for a given period was in excess of or less than the expense chargeable against the movement of the whole? That that, in a general way, is the problem in the case, whether the rates yield anything in excess of cost or not? A. Generally speaking, yes, I should say that was the situation.

Q. The testimony of the carriers has dealt principally with the fiscal year ending June 30, 1911? A. Yes, sir.

Q. And the total revenue yielded by these rates for the movement of coal during that period is, of course, a known figure? A. Yes, sir.

Q. That has been shown as to each of the three carriers, by the testimony offered by the accounting officers? A. That is a matter of bookkeeping, yes, sir.

Q. That being the only side of the question, the main difficulty, then, would center around the determination of how much it had actually cost each of these carriers to do this business during that period? A. Yes, sir.

Q. And for the purpose of getting that information, you had to start with figures supplied by the railway company in each case, showing the total operating expense in the state of North Dakota for that year? A. Yes, sir.

Q. Those figures, of course, were supplied by the railroad companies, but I do not understand that there is any question as to the accuracy of any of that

data, or as to the means by which it was ascertained? A. Well, no, I would not say so. Of course certain of the expenses are alloted under methods that we know of. I do not think there is any question as to their accuracy. Of course we did not make any point as to the method. We did not attempt to criticise the method of allotment.

Q. They have been allotted in every instance in the usual way of finding North Dakota's proportion of it? A. Yes, sir.

Q. Those operating expenses covered the expenses chargeable against both freight and passenger? A. Yes, sir.

Q. So that your first step in determining what the total operating expenses were would be to divide them between freight and passenger? A. Yes, sir.

Q. And in dividing them you rejected the method adopted by Mr. Johnson, so far as he pursued any distinct method in his testimony, and likewise the method pursued by Mr. Hillman, and adopted, so far as you could, the method pursued by Mr. Ney in his testimony in the Advanced Rate Cases? A. I could answer that in a general way, yes, but when you say rejected it is hardly expressive of the situation, because the method was determined before their testimony in the case was introduced.

Q. At any rate, the method you actually adopted was the method which, in your judgment, would most accurately assign to those two classes of business, each its proper proportion of the expense? A. Yes, sir.

Q. That, of course, was your purpose all the way through, to get at the thing with as much accuracy as the subject admitted of? A. Absolutely.

Q. Now, then, coming to the exhibits which have

been introduced in connection with your testimony, Mr. Little. The exhibits 2-a, 2-b, 2-c, 2-d, 2-e and 2-f consist merely of the information which was supplied to you by the carriers at the request of the commission? A. Yes.

Q. And the date contained in these exhibits are introduced for the purpose of supplying the basis for your own calculations, which you proceed to make upon them in later exhibits? A. Yes, sir.

Q. Then, in your Exhibit No. 3, you explain, in a general way, the Ney method of separating these expenses? A. Yes, sir.

Q. And Exhibits 4, 5, 6, 7 and 8—in them you proceed to divide the expenses under the general accounts of maintenance of way and structures, maintenance of equipment, traffic expenses, transportation expenses, and general expenses, making the division between the operating expenses for freight and passenger? A. That is so, yes, sir.

Q. Your Exhibit No. 9, then, shows the general result of this, and adds the taxes? A. Yes, sir.

Q. The proportion of the taxes chargeable against freight being determined on the gross earnings basis? A. Yes, sir.

Q. Now, then, in your Exhibit No. 10, you proceed to take up the primary accounts, grouped under the general account of Transportation Expenses, and to divide those primary accounts into three classes: first, those which you consider terminal expenses; second, those which you think have a movement expense larger for local than for through, and third, movement expenses which do not vary between through and local trains? A. Yes, sir.

Q. Now, what determined the assignment of any

one of those primary accounts to this or that one of these three groups? Merely your own judgment as to where it ought to fall in that classification? A. Knowing, generally, the items chargeable to each one of those primary accounts, one could determine whether a certain account was figured in doing what is ordinarily known as the terminal work, or the movement work, which is train work; so as between the terminal and the movement expenses one can quite accurately divide them and determine where one leaves off and the other begins.

Q. You merely exercised your own judgment? A. From the nature of the charges to the accounts, as prescribed by the Interstate Commerce Commission.

Q. But this classification is a classification of your own devising, is it not? A. It is, although it follows in a general way the practice and the statement of the Wisconsin Commission in work that they do in attempting to arrive at a system of average cost for roads in the state of Wisconsin, and it agrees substantially with similar statements or division made by Mr. Rankin, I think it is. The division is made by some authorities—has some authority back of it anyway. I think that, generally speaking, you can find some support for the theory I adopted in treatises of engineers on the subject, from the very earliest authorities.

Q. You mean authority for the division of the primary accounts grouped under the general head of transportation expenses into these three groups? A. Yes, that is to say that they all state the variation of these expenses. That is, they generally state the character of the expense under these general headings, and in estimating the greater cost for local trains,

certain authorities consider that some of the expenses are higher and some of the expenses do not vary as between that train and another train. I have not the authorities at my fingers' ends, but with a little time I think I could cite you quite a number of authorities where the accounts have been quite carefully analyzed, who make a similar or somewhat similar division.

Q. You assume, then, that in your Exhibit No. 10, you have grouped, under the sub-head of Terminal Expenses, all of the expenses properly falling under that sub-head, there, all of the transportation expenses? A. Well, it would be inaccurate to this extent, that in the case of local trains a certain amount of the time of the train and enginemen is devoted to service at way stations. This is a proposition to arrive, in my judgment, at an average result that I could fairly say is a conservative statement of the case. Of course I do not think that it is possible to accurately determine the absolute cost for particular commodities, so I have used an average which I considered to be a fair one, and used certain methods of deduction.

Q. Would not you think that some proportion of the expenses falling under the primary account Superintendence should be properly chargeable as a portion of the terminal expenses? A. Well, possibly that is true.

Q. I will simply have to ask you to answer questions directly, Mr. Little. I don't want to chop off any of your answer, but wouldn't you think that the proportion of the expense chargeable under the primary account, Stationery and Printing, was properly assignable to the sub-head expense? A. Possibly.

Q. Is that as far as you feel that you can go? "Possibly?" A. Yes, undoubtedly a portion of it might have been charged to terminal expenses.

Q. Of course, in proportion as you increased the amount of the sub-head terminal expenses, the amount of the terminal expenses per loaded car that you subsequently arrive at would be increased? A. Yes, sir.

Q. On the other hand, the movement expenses, would be proportionately reduced because you would be taking from this account and carrying it up to the terminal expenses? A. It would. I do not think that making the divisions you speak of in these accounts would materially alter the final result, though I have not made the computation.

Q. But this, at any rate, represents with as much accuracy as you can get at it, your own judgment as to the cost, as you proceeded to develop it? A. Yes, sir, generally speaking. If I may add, the division here made was, to at least a certain extent, based on the analysis of transportation expenses stated by the Wisconsin Commission in the so-called Buell case, a passenger case in which they considered the subject of the higher cost for local, as against through movement, and quite a thorough analysis was made of transportation expenses, in a general way.

Q. Now, Mr. Little, having ascertained under each of the general heads, the amount properly chargeable against freight for the year 1911, you reached a total amount that was considerably in excess of the total arrived at by Mr. Johnson for this same year? A. Yes, sir.

Q. Dealing, of course, as we are throughout in my examination, with the Northern Pacific? A. Yes, sir. The method used, which charges the higher amount

to freight is also quite similar to, and would probably result in figures very close to those which would be secured by using the Wisconsin method laid down in the Buel Case, and the method was selected for that reason.

Q. Now, having ascertained the total chargeable under each of the five general accounts. you took the general account, Transportation Expenses, and made this division of it into the three sub-heads that we have indicated? A. Yes, sir.

Q. And you have ascertained in that way that the proportion of the transportation expenses chargeable as terminal expenses for the year 1911, for the Northern Pacific, in North Dakota, was $364,617.90? A. Yes, sir.

Q. And that amount you ascertained and showed on your Exhibit No. 13, to be 20.71 per cent of all of the transportation expenses, chargeable against freight? A. Yes, sir.

Q. Therefore, 20.71 per cent of the transportation expenses being chargeable as terminal expenses, you assumed that 20.71 per cent of the expenses grouped under each of the other four general accounts would represent the proportion of each of those four accounts chargeable as terminal expenses, is that correct? Is that the method pursued? A. Yes, sir.

Q. And that gave you a total of terminal expenses which, as shown on your Exhibit No. 15, was $752,430.81? A. Yes, sir. That total includes the taxes.

Q. That does include the taxes? A. So far you have not said anything as to taxes. I had not noticed that in my answer.

Q. And you ascertained the terminal expense pro-

portion of the taxes in the same way, by taking the 20.71 per cent of that portion of the total taxes paid in North Dakota? A. Yes, sir, on the assumption that the overhead expenses should be charged in proportion to the direct, or what would appear to be the direct expenses, or the easily located direct expenses.

Q. So that your total terminal expense, including taxes, was the figure which I have stated, $752,430.81? A. Yes, sir.

Q. Now, then, that having been ascertained, you had to ascertain what was the terminal expense per car handled in North Dakota on the Northern Pacific during that period? A. Yes, sir.

Q. And there was not in the figures supplied in any of the testimony, any direct statement of the number of cars handled? A. No, sir.

Q. But there was a statement of the loaded car mileage, and of the empty car mileage? A. Yes, sir.

Q. And there was a statement of the average load in North Dakota, of all freight during the same period, being 19.25 tons? A. Yes, sir.

Q. And it was conceded, throughout, that the average weight of the empty car was sixteen tons? A. Yes, sir.

Q. So that you knew the average gross load was 35.25 tons? A. Yes, sir.

Q. There was likewise in evidence a statement of the average haul of the loaded car, 227.7 miles? A. Yes, sir.

Q. So that dividing the number of car miles by the average haul, you got the number of cars handled, which was 189,583 cars? A. Yes, sir.

Q. And dividing that into the total terminal expense ascertained in the way which you have described,

and which has been described in your answers to previous questions, you ascertained that there was a total terminal expense per car of 14.7 cents. No, the total expense, I should have said, per car, was 3.9688 dollars? A. Yes, sir, on the basis of its having cost the average so determined.

Q. That gave you, then, the terminal expense, and as you knew that the terminal expense per car was 3.96, and a fraction cents, if you multiplied the number of cars of coal moved by the Northern Pacific during that year, which is shown in the exhibit, or, rather, in the testimony, that would give you the total terminal expense incurred in connection with the movement of that coal during that period, would it not? A. On that basis, yes, sir.

Q. Then you had to ascertain the movement expense, and to add that you showed on your Exhibit No. 14, in the third item, what you describe as the revenue car miles loaded, as per Exhibit No. 25, Johnson, as being 43,168,035 car miles. Is that correct? A. Yes, sir.

Q. Where is there in Exhibit No. 25, Johnson—don't you mean Exhibit No. 19? Isn't that a mistake? A. (Referring to paper.) It should be Exhibit No. 23, Johnson. Exhibit No. 23 shows it near the bottom.

Q. Well, it is also shown, is it not, on Johnson's Exhibit No. 19? A. Yes, sir, it is shown on Exhibit No. 19.

Q. Now, in your Exhibit No. 14, you say revenue car miles, loaded, as per this Johnson Exhibit, 43,168,-035 car miles. Isn't that a mistake, Mr. Little? A. (Examining paper.) Yes, sir, that is a mistake.

Q. That is both loaded and empty, isn't it? A. Yes, sir. both loaded and empty.

Q. And on Johnson's Exhibit No. 19, the number of freight car miles, loaded, is shown, and the number of freight car miles, empty, is shown, is it not? A. Yes, sir, it is shown on Exhibit No. 19.

Q. So that the figure which you ought to have shown at the end of the third item of Exhibit No. 14, instead of being 43,168,035, should have been 36,450,279, should it not? A. Yes, sir.

Q. Now, then, in order to get at the total gross tonnage, or ton mileage which you would use as your divisor, into this figure which you had ascertained to be the total expense chargeable to freight in North Dakota on the Northern Pacific for the year 1911, independently of the terminal expense, you would multiply 36,450,279 by 35.25, would you not? A. Yes, sir.

Q. Instead of multiplying, as you did, 43,168,035? A. Yes, sir.

Q. Now, will you kindly produce that figure now, Mr. Little? (Witness makes calculation on piece of paper.) It would result in a gross ton mileage of 1,284,872,334.75, or 1,284,872,335 would serve as well.

Q. Now, then, there would have to be added to that, would there not, in order to get at your total gross ton mileage, sixteen times your empty car mileage, because this figure has been produced by simply multiplying your loaded car mileage by 35.25, whereas this expense that we are dealing with was an expense covering the movement as well of the empty as of loaded cars. A. That would not be true on the theory

I have proceeded on. The empty car mileage was handled as an overhead charge on the entire business.

Q. Well, if you think it would not be true, all right, but it redounds against your own theory, as I think. Upon that basis, then, the total gross ton mileage is what? Will you kindly state it again? A. 1,284,872,335. Don't I agree with Mr. Johnson there? I did not test it out or anything.

Q. Now, that figure, then, the gross ton mileage which you have just given, is the divisor which you use to ascertain the movement transportation expense, which varies as between through and local? A. Yes, sir.

Q. And that figure is $1,007,572.49? A. Yes, sir.

Q. Now, then, will you kindly divide into that the gross ton mileage as ascertained? (Witness makes calculation.) A. The result I have arrived at, instead of .662 mills, would be .784 mills.

Q. Now, that is your cost per gross ton mile? A. That is my cost per gross ton mile, yes, sir.

Q. And your cost per loaded car of lignite at the average cost would be 42.87 times that, or how much?

(Witness makes calculation on paper.)

A. The figure would be 3.361008 cents.

Q. Then your cost per revenue ton per mile would be the figure you have last stated, divided by 26.87, would it not? A. (Figuring). Yes, sir. The new figure would be 1.25 mills.

Q. If handled, then, as local, the cost per revenue ton mile is two times that amount, or how much? A. 2.50 times.

Q. Now, right there, upon what basis do you assume two times the average for the local, or the average of this particular proportion of the transportation expense

as the local expenses? A. Well, some authorities have held they were possibly as high as double, and I think there are one or two decisions that hold they were fifty per cent. I think that adding one hundred per cent added to this portion of the train expense would be conservative.

Q. Is not the testimony of traffic officials, generally to the effect that the transportation cost of moving local freight is double the total transportation expense of through freight? A. I have seen testimony to that effect, although in arriving at results on the lignite traffic an average that might be applicable, you must consider that you are considering the carload traffic and a portion at least of the local expense, or the higher local expenses, are due to the handling of L. C. L. freight.

Q. So that in your judgment, double this proportion you have taken is fair? A. I should think it would be at least fair.

Q. But does not Mr. Johnson's Exhibit No. 20 show that the cost of moving the main line way freight is 2.67 times as much as moving the main line through freight, that is, the transportation expense? A. Yes, sir.

Q. And it also shows that the transportation cost of moving branch line freight is 2.99 times as much as moving main line through freight? That is true, is it not? A. On the basis shown on which those results are arrived at, yes, sir.

Q. Well, now, why do you reject those results, and assume instead of it that the transportation cost is only twice a proportion of the transportation expense? A. I have seen a few trains—local trains, operated in North Dakota, not particularly on the Northern Pacific,

but I know of trains that are operated on the Minot Division of the Great Northern, for instance, in a territory similar to that in North Dakota, that is, in Eastern Montana, where we have much the same conditions, and I know of trains that started out of Williston at seven o'clock in the morning, and the handling of package freight did not allow them to get into a station thirty or forty miles from there until about evening. I know that at those particular stations we used to hold a train anywhere from an hour to three or four hours, checking out the package freight from the peddling cars. Well, now, the time of the enginemen and the trainmen, as I understand it, on these way trains, has been all included and lumped on the tonnage, without regard to the difference in the cost of handling the less than carload as compared with the carload business, and while the average arrived at by Mr. Johnson might be true as figured there, I think that the carload traffic is not nearly as expensive as the less than carload traffic, and the method which would charge to the carload traffic a higher cost due to less than carload traffic, does not seem to me to be fair.

Q. On the other hand the carload traffic has properly assignable to it an element of expense in the way of switching that the L. C. L. traffic does not have. A. Yes, but in the local trains as I have seen them operating, there are at least two of the brakemen and one conductor handling way freight the bigger share of the time that the train is at the station. Switching, ordinarily, is not very heavy.

Q. Ordinarily, is the detention of a train for such a period as you have indicated an ordinary occurrence? A. Of course this was possibly heavier than the average station, but from general experience and observa-

tion in the handling of other branch and local way freight trains, I should say that the greater portion of the time, and the greatest part of the attention of the rain crew was devoted to the handling of the less than carload stuff.

Q. At any rate the fact is this, that although these figures which are taken from the records show the transportation cost of handling main line way freight to have been 2.67 times the total transportation cost of hauling main line through freight, and although these figures, taken from the record, show the total transportation cost of handling the branch line freight to have been nearly three times the total transportation cost of hauling the main line through freight, you, in your figures, have assumed that the transportation cost of hauling what is called local freight is only two times a portion of the transportation expense? A. Yes, sir.

Q. Well, then, you get a local cost of 2.50 mills, for the lignite coal? A. Yes, sir, on the corrected figures.

Q. For that proportion of the transportation expense which, as you say, varies between through and local? A. Yes, sir.

Q. Now, you have likewise to ascertain that proportion of it that does not vary, and for that purpose your dividend is $1,872,776.49, is that correct? A. Shown on Exhibit 16, yes, sir.

Q. And your corrected divisor again is 1,284,872,-335? A. Yes, sir.

Q. And what is the quotient? A. (Witness makes calculation on piece of paper.) The corrected figure is 1.457 mills.

Q. That being the quotient that is yielded, 1.457, your cost per loaded car mile of lignite would be 42.87 times that, or how much? A. 6.246159 cents.

Q. And that divided by the net tons, yield what? A. 2.324 mills, or nearer to 2.325 mills.

Q. That, then, would be the average cost per ton of lignite coal for the transportation expense that is constant? A. Yes, sir.

Q. Adding to that, then, 1.25 mills for the transportation expense which is variable when it moves in through trains, gives you 3.575 mills per ton for the movement of lignite coal on through trains? A. Yes, sir. Well, I do not know that I am strictly accurate in saying through trains, because all of the expenses in that group which I considered as being variable between through and local were the expenses actually incurred for the operation of all trains. That, of course, means that in that total expense there would be included three classes of actual operating expenses if you consider them as varying in cost. They are through train expenses, way train expenses, and branch train expenses. This would be an average of all those three classes.

Q. Yes, but this would be the result which your figures would yield as the cost of moving a ton of lignite coal in a through train, and to get at the cost for a branch line of way train it would be— A. (Interrupting counsel.) That is the nearest approach we have, although I think it would be overstating the through train cost, because of the other factors or expenses of the other trains being included and lumped in with the through trains.

Q. Well, to get at your local cost, then, you would add this 1.25 mills to that? A. That was done in these exhibits.

Q. That is the way you did do it? A. Yes, sir.

Q. We know, do we not, the number of loaded car

miles which moved in main line through trains, and the number of loaded car miles which moved in main line way trains? That information being given in Johnson's Exhibit No. 17? A. That is in the lignite business?

Q. Yes. A. Yes, I think that was done.

Q. The number of loaded car miles of the lignite coal business in the branch line trains, covered in the same exhibit? A. Yes, sir.

Q. That covers the period of 14 2/3 months, does it not? A. Yes, sir.

Q. But it is possible, the months being individualized, it is possible by cutting off the three top months, April, May and June, 1910, to get at the loaded car mileage in question for through trains, way trains, and branch line trains for the fiscal year ending June 30, 1911? A. Yes, sir.

Q. And Mr. Hillman did do that in his testimony? A. I think so.

Q. Showing that the main line through mileage for the year was 178,166? A. That is the main line through figures, you say?

Q. Yes, sir. A. I think that is the local, isn't it?

Q. That is right. That is a mistake. Main line local 178,166, and the branch line is 38,387? A. Yes, sir.

Q. And the main line through, 129,648? A. Yes, sir.

Q. If you multiplied each of those by 26.87, you would get your lignite ton mileage? A. Yes, sir.

Q. Will you kindly do that, as to each of the three, and state what it is? A. (Witness makes calculation on piece of paper.) The lignite ton mileage arrived at in this way would be as follows: On local trains,

4,787,320.42? On branch line trains, 1,031,458.69, and on through trains 3,483,641.76.

Q. Now, then, if you multiplied your ton mileage on local and branch line trains by 4.825 mills, you would get the cost of the local movement independently of terminal expenses? A. Yes, sir, which would result in a total cost of $28,075.61.

Q. And if you multiplied your main line through ton mileage by 3.575 mills, you would get your cost for the main line through movement, which would be what? A. $12,454.02.

Q. Making a total movement cost of how much? A. Of $40,529.63.

Q. Now, then, we know already, as you have previously stated, that the number of cars of lignite coal moved during this period was 4,410? A. We know that it was 4,410.

Q. The terminal cost you have ascertained to be 3.9688? A. Yes, sir.

Q. What, then, would your total terminal cost be? A. About $17,502.41.

Q. Or a total both for terminal and movement expenses of how much? A. $58,032.04.

Q. Now, in getting this result, Mr. Little, you have disregarded the empty car mileage? A. Yes, sir.

Q. Now, would it not be more correct in getting at your gross ton mileage, after you had multiplied 36,450,279 loaded car miles by the figure 35.25, which yielded you, as a result, 1,284,872,335, to have also multiplied your empty car mileage, namely, 6,617,756, by sixteen, and added the product to the gross ton mileage obtained by the multiplication of the loaded ton mileage, and then used that same as a divisor for

ascertaining the cost per gross ton for movement? A. I think your question asks if it is correct.

Q. Wouldn't it have been more correct or more exact to have gotten at it in that way? A. Not on the theory that I have adopted in this case.

Q. Well, it would certainly represent more accurately the actual gross ton mileage wouldn't it, which these expenses cover, because the expenses, of course, covered the movement of the empty cars as well as the loaded cars? A. That is true, but that would affect other portions of the calculation. That is—

Q. (Interrupting witness.) Doubtless. A. I mean it would be impossible to apply the method I have here applied and make such a calculation.

Q. But you would get as a result a figure which could be applied, and you would get as a result, assuming the accuracy of your divisor and your dividend, you would get as a result the actual movement cost of your gross ton miles, the average actual movement cost? A. Well, Mr. Donnelly, if we were to attempt to find anything like an average gross ton cost for North Dakota, why it costs as much to handle company freight as to handle revenue under the same conditions, so that possibly you will say that we ought to have included all company freight in arriving at the cost of handling, but it was not done, and the cost of moving the company freight, as well as the cost of moving the empty car, is considered as being an indirect expense on all of the business under this method of handling costs.

Q. Isn't any method unfair to the lignite coal traffic in North Dakota, Mr. Little, in view of the very large percentage of empty car mileage to loaded car mileage, shown by the undisputed testimony in connection with

this lignite coal traffic as compared with the average traffic, unless you do take into consideration the empty car mileage? A. I can not see the relation between the lignite traffic and the average deducible from the entire traffic.

Q. It is true, is it not, that the testimony shows that for every one hundred miles loaded car haul, the average of all traffic there is an empty car haul of only a fraction over eighteen miles? A. Yes, sir.

Q. And the testimony also shows that for every one hundred car miles of lignite coal haul there is an empty car haul of more than seventy-two miles? That is true, is it not? A. Yes, sir.

Q. That being the case, there is a much greater percentage of empty car haul in connection with this traffic than in connection with the average traffic, that is true, is it not? A. That would be true on those facts, but in connection with these figures I felt, from certain investigations that I had made, that possibly the lignite traffic ought to be considered on the basis of the average of all traffic.

Q. That is including all of the long haul through the state? You think that would be fair? A. Now, Mr. Donnelly, on the empty car proposition, I think that you undoubtedly know that we checked the station records at Dickinson, to obtain a list of the coal handled between Lehigh and Dickinson, which is quite a large proportion of your total movement, as shown in the detail movement sheets filed in connection with Mr. Johnson's testimony. We submitted a list of these cars and approximate date of movement, to your superintendent of transportation, with a request to say when these cars were made light, and where they received subsequent loading. I find that here was a

movement of five miles, at the end of a freight division, Dickinson being the freight terminal, or from Lehigh, being almost a part of Dickinson, to Dickinson. So far as I know, those cars might have traversed the entire division empty to obtain this five-mile haul. A method of charging which would charge against five miles of lignite coal traffic an empty car haul of one hundred miles, where that car received a load of flour from Dickinson for Tacoma, Washington, did not appeal to me as being equitable. The loaded cars between Lehigh and Dickinson were a very large proportion of the total movement on the Northern Pacific, and I had no means of ascertaining, or, at least, we do not know the empty movement charged against those cars, so I felt that I would better rely on the average traffic, under those conditions.

Q. Do you know how the traffic moves in North Dakota, that is, where is the predominating movement, east or west bound? A. Of course at the time of the year when the lignite business is moving, a great deal of the traffic would be moving east, grain for the Twin Cities, and for the head of the lakes, and I found that a great many of those cars received a load of either feed for eastern delivery, or grain coming to the Twin Cities or head of the lakes, not entirely at Dickinson, but in the immediate vicinity.

Q. Do I understand you, Mr. Little, that you question the accuracy of the Northern Pacific's statistics as to the empty car movement? A. I do not question the accuracy but I do question the fairness of charging the movement of empty mileage that would probably be charged against the Lehigh to Dickinson movement under the circumstances of that movement. I do not question the accuracy, Mr. Donnelly.

Q. At any rate, the result of the figures as corrected, Mr. Little, is this: That disregarding altogether this empty car movement in connection with the movement of the coal, and taking your figures as corrected, and which you say represents your best judgment as to the proper way of getting at the cost of the movement, you show a total cost for the movement of this coal during that year, of $58,032.04. A. Cost for operating expenses and taxes.

Q. Cost for operating expenses and taxes. Now, Mr. Little, will you kindly, some time this evening, so that you can bring it around here tomorrow morning, correct your Exhibits 17 and 18 in the light of the corrected figures which you have made so that they may show the real situation? A. Yes, sir, that will be easily done.

Q. You do not know, Mr. Little, what the relation of the east-bound tonnage movement to the west-bound tonnage movement is,—that is, how much it predominates? A. Except in a general way. I know that in some parts of the state undoubtedly empty cars are hauled west-bound to handle the grain east-bound.

Q. Well, the coal moves east? A. Yes, sir.

Q. Now, the empty car mileage mevement on all traffic being only eighteen per cent, and upon the lignite coal being seventy-two per cent, and the predominating movement being east both as to all traffic and as to the coal, does not it necessarily follow that in view of the large west-bound empty car mileage movement, it must be very largely for the coal—that these cars going in there must be going there merely for the coal to a much greater extent than the average? A. Well, now, as I understand the situation in North Dakota, we have a territory in North Dakota where,

for instance, a car will go to the head of the lakes for coal loading, and be loaded to a point in the grain territory with coal. The eastern part of the state burns a lot of eastern coal, so that undoubtedly in connection with that business there would be very little empty car mileage, as compared with the entire trip of the car, that it would make, coming in with coal and going out with grain. In the western part where we depend more on the native coal, there would not be these coal loads coming from the east, and undoubtedly there are empty cars taken in there for grain loading, and that territory would present a different situation, I believe, than the eastern and central part of the state. If they are taken in there for grain loading, it would represent the movement of empty cars from some of those eastern points of supply, to this territory as an empty haul entirely. More grain is being produced west of the Missouri River every year, and a lot of empties are moved out there for the grain.

Q. Will you answer the question directly, as to whether those percentages of empty cars going in there must not necessarily be going there for coal to a much greater extent than the average? A. Well, now I could not say positively as to that.

Q. You will correct those exhibits? A. Yes, sir.

An adjournment was here taken, by the consent of all parties, until 10:00 o'clock A. M., July 2, 1912.

Hearing was resumed at 10:00 o'clock, A. M., July 2, 1912.

Present the attorneys for the State of North Dakota.

Present the Counsel for the Respective Defendants.

Mr. Little on the stand.

Examination continued by Mr. Donnelly.

Q. Mr. Little, calling your attention again to the question of the relative transportation cost per ton mile for main line way freight, as distinguished from main line through, as I remember your testimony of yesterday, you said that because of the fact that the extra cost for main line way is due principally to the fact that those trains carry a peddler car, and that that peddler car had no relation to the coal traffic, therefore you did not think that it was proper to allow the full extent of the excess shown by Mr. Johnson's Exhibit No. 20, is that correct? A. Yes, sir.

Q. Well, now, the excess for main line way over main line through, as shown on that exhibit, is the excess cost, principally per train mile, is it not? A. Per train mile on the basis of certain of the transportation expenses.

Q. Yes. A. Yes, sir.

Q. Practically all of the transportation expenses are they not? A. Practically all, yes, sir.

Q. That excess cost per train mile, however, does not fully explain the excess cost per ton mile, as shown on that exhibit, does it? A. It does not fully explain? I do not believe I fully understand your question.

Q. Isn't the excess cost per ton mile as shown on that exhibit, due, in a very large measure, to the much lighter load moved in the main line way freight trains. A. The expenses are spread over a larger tonnage, yes, that is true.

Q. And that is in a very considerable degree the explanation of the fact as shown by that exhibit that the cost per ton mile of main line way is 267 per cent of the cost per ton mile of main line through, is it not? A. As shown on the exhibit that would be so.

Q. And it is a fact, is it not, that Mr. Hillman, in

his testimony, after rejecting or disallowing the excess cost per train mile for main line way because of the fact that you have noted already, that the excess cost is due to the peddler car, himself gave us a cost per ton mile for main line way, of 219 per cent of the cost per ton mile of main line through? A. I did not hear Mr. Hillman's testimony. I did read it over, but I do not remember the exact figure. I think it was something like what you have stated.

Q. Do you recall that his cost per ton mile of branch line freight is substantially 275 per cent, a reduction of Mr. Johnson's figure of 299 per cent of the cost per ton mile of main line through? A. I do not recall that figure, no sir.

Q. In view of those facts, you say you recollect that is substantially his figure for the cost of main line way as distinguished from main line through, and in view of the further fact that he gets this percentage after the rejection of the only item which you assign as the cause of the increased expense, do you still think that it is proper for you to take as the excess transportation cost of main line way freight, as distinguished from main line through, only two hundred per cent of a portion of the transportation expense, when Mr. Hillman, himself, shows it to be 219 per cent of all the transportation expense? A. I should say it was, for this reason; the entire transportation expense on the Northern Pacific in North Dakota results from the operation of three classes of trains, through trains, way trains, and branch line trains. Now, the total expense shows what was actually charged against the expense accounts for the operation of all those trains. Now, an average cost based on the gross ton mileage for the entire state would give you a mixed figure, which

would not be a through train cost, because you have the local train cost and the branch line train cost in that figure, so that taking double the average cost per gross ton mile, figured on that mixed figure resulting from the entire operation, and doubling that, you are not doubling the through train cost. You are doubling the average cost of all of the operation, and that average cost would either approach the through cost, or the local, or branch line cost, depending on the general character of the operation in the state, as to whether the through trains, or the other classes of trains predominate.

Q. Then your proposition is that in your figures you are contending that the cost of main line way which you allow is not two hundred per cent of the portion of the main line through transportation, but two hundred per cent of the average expense for that portion of the transportation? A. I am contending that it would not exceed two hundred per cent of the average expense of the mixed operation of all the trains, and the gross ton miles resulting from the operation of all those trains spread on that cost.

Q. Yes. A. You appreciate that if the cost produced might be, say, one hundred and fifty per cent of the through train cost, doubling that would be three times the through train cost. I may have actually used, in my figures, for the so-called way freight, three times the through train cost. I have not tried that out.

Q. Just one or two more questions, Mr. Little. At the foot of your Exhibit No. 17, as originally introduced, you have a note to the effect that the length of the freight division in North Dakota is one hundred miles, and lignite moving over one hundred miles is

therefore through business. Does that necessarily follow? A. Well, of course that would depend on the origin of the lignite. For instance, if it originated at Lehigh and was going through to Mandan, it might be picked up by some through train.

Q. It is true that there might be very many movements of over one hundred miles that would not necessarily be through train movements? A. If handled from a central point on one division to a point midway on the other division, it would probably be handled in a way train.

Q. Started from Sims, for instance, and moving to a point more than one hundred miles, through one terminal but not up to the next, it would be a way train movement, wouldn't it? A. It would probably be so handled.

Mr. Donnelly: That is all that I have, I think.

By Mr. Armstrong:

Mr. Little, the statements which you offered as exhibits in this proceeding, relating to the business of the Great Northern Railway Company, were all made for the purpose of showing the terminal and movement cost of transporting lignite coal? A. They were made for the purpose of showing, in a general way, what would be a safe limit of this expense, and in that way to build up a rate to correspond to the legislative rate for certain distances, and compare the two.

Q. That is, as applied to the traffic of the Great Northern Company? A. Yes, sir.

Q. And all tables and statements which you prepared and offered lead to your exhibit No. 47? A. Yes, sir.

Q. Which exhibit shows the comparative results as figured by you under your method? A. Yes, sir.

Q. Now, will you please define what you mean by a

terminal service, as the term is used by you in your exhibits. A. Terminal service would consist in all handling of cars at terminals, and placing of those cars on the industry tracks for loading or unloading. That is where that work is done in a regularly organized yard. Of course in the transportation expense, we do not have a yard expense account for your small, intermediate stations, and therefore that expense is not allocated in this case.

Q. Yes. Then the expression terminal service, as used by you, means a service either at the point where the traffic originates or at the point of destination? A. Yes, sir.

Q. And no intermediate service is considered in connection with the shipment? A. Well, it is in this way: You handle a certain number of cars in the state. Now, the entire handling of these cars from the point of origin to destination in the regularly organized yards is the total of your yard expense.

Q. But merely to make this clear, in arriving at your lump sum, the service which you have designated as terminal service is the service either at the point of origin or at the point of destination, or both? A. That is what I would ordinarily call terminal service, but in this case for instance, if you have two hundred cars which have moved across the state, there may have been a certain amount of handling at freight terminals in the state, or changing them from one train to another. All of the service performed in the state of any character was apportioned on the entire number of cars handled, so that it would involve the expense of spotting cars and taking cars from industry tracks, switching from train to train, or service of any character; but it was my idea that the terminal expenses on

the lignite business could be put at the average arrived at in that way for all classes handled. I have considered that average as the expense incurred in receiving and delivering the lignite.

Q. Now, referring to your Exhibit No. 44, Mr. Little, the average revenue load per car is sixteen tons, is it not? A. Yes, sir.

Q. And, referring to Exhibit No. 40, the number of tons handled is 174,944 intrastate, and 2,955,066 interstate, or a total of 3,130,010 tons? A. Yes, sir.

Q. If the average of sixteen tons be applied to the above intrastate tonnage, the number of cars required to handle it would be approximately, that is, allowing for fractions, 10,968 cars? A. Why, I can not say that.

Q. Well, will you figure it? A. Oh, intrastate! excuse me. (Witness makes calculation on piece of paper.) Why that would be the approximate figure. That would be the approximate figure, yes, sir.

Q. And figuring similarly for interstate tonnage, the number of cars required to handle it would be 185,248 cars? A. (Witness makes calculation.) Approximately.

Q. Which would make a total of 196,216 cars, as per your exhibit No. 44? A. Yes, sir.

Q. Now, referring for a moment to your Exhibit No. 45. If your number of cars should be incorrect, the average cost per car for terminal service would be correspondingly incorrect, would it not? A. Yes, sir.

Q. The intrastate cars would have two terminal services in the state of North Dakota, would they not? A. Yes, sir.

Q. The interstate cars, at the most, could have but one terminal service in that state? A. Well, yes, they

would have one point of origin or destination, but of course there is a certain amount of yard service in connection with making up trains and the distribution of these cars that would be in addition to that point of origin service, and that would be an unknown quantity.

Q. That is, you have no figures available to show it? A. Yes, sir, that is what I mean. I mean that it would not be unknown, but it is not in the record so far.

Q. And has not been taken into consideration by you in these figures? A. No, except that in a general way I know how certain classes of the interstate traffic are handled, ordinarily.

Q. You have no figures available to show how many of the interstate cars pass through the state without having any terminal service whatever? A. No, sir, I have not. Although an interstate car passing through the state might have a certain amount of terminal service.

Q. But the statistics which have been furnished you at the State's request, by the Great Northern, has not segregated the figures in that way? A. No, sir.

Q. Considering the fact that all the transcontinental business of the Great Northern crosses the state of North Dakota, there would be a large number of cars of interstate freight which would have neither their point of origin or destination in the state of North Dakota, would there not? A. Yes, sir.

Q. There would be a large volume of tonnage in interstate transcontinental business which would pass through the state of North Dakota, which would have neither a point of origin or destination in that state? A. Yes, sir. In connection wi that service, of course, in the case of certain low grade freight, there is a certain amount of re-arrangement of these trains, at in-

termediate terminals, which is, of course, a terminal service. There is a certain amount of yard work—yard office work in connection with it, usually.

Q. Well, now, Mr. Little, from your experience as a statistician, and in the light of your connection with the North Dakota Board of Railroad Commissioners, and your personal knowledge of the flow of traffic back and forth across the state of North Dakota, would you care to make an estimate of the number of cars of interstate freight that pass through the state of North Dakota without having any terminal service in that state? A. No, sir. I know it would be quite a large number, of course.

Q. Now, whatever the number of those cars might be, they should be eliminated from the total number of cars should they not, which are charged with the cost of terminal service? A. Well, a portion of it, possibly. I could not say just how much.

Q. Well, whatever the number of cars, they should be eliminated? A. I do not know as the entire number should be eliminated.

Q. Well, all cars that do not have any terminal service in that state should be eliminated from the number of cars upon which terminal service is charged? A. Well, now, a car may pass through and still have some terminal service; that is, you might have so-called dead freight; you might have a time freight that was carrying, to fill its tonnage rating, over a certain part of the territory, a certain amount of that low class of freight, like lumber, and you might come into the wool producing territory of eastern Montana within a short time, and, instead of having this time freight go through solid, you will take out some of this lumber and substitute your wool cars. There would be a cer-

tain amount of handling putting the other cars in. There is a certain amount of that class of business, but I do not know how much of the entire expense would be absorbed in that class of business.

Q. All interstate freight that passes through the state of North Dakota without having any terminal service should be eliminated from the number of cars charged with the cost of terminal service. A. Where it had absolutely no terminal service.

Q. Mr. Little, referring back to the number of cars of intrastate business which you testified was 10,968 cars, approximately. A. Well, that is of course on the assumption that the intrastate freight loaded the average of all traffic in the state.

Q. That would make 10,968 cars? A. Yes, sir, on that assumption.

Q. And those cars would have two terminal services in the state of North Dakota, would they? A. Yes, sir.

Q. Which would make 21,936 cars in intrastate business receiving terminal service. That is doubling the number of cars used in intrastate business? A. Yes, or that probably received two services.

Q. Yes. Which would approximately make 21,936 cars, receiving one terminal service. A. Of course in this average service—

Q. (Interrupting witness.) Let us get through with this, Mr. Little, and make your explanations afterwards. I do not wish to be unfair, and you will have an opportunity to make explanations afterwards, but I think it would simplify matters to go through, on the line I am conducting. Now, on the interstate cars figured on the basis of dividing the number of tons handled in int[illegible]te business by the average tonnage,

it amounted to 185,248 cars, approximately? A. Yes, sir.

Q. Now, assuming that one half of those cars only received a terminal service in the state of North Dakota, that would leave a total of 92,624 interstate cars receiving a terminal service? A. Something like that, yes, sir.

Q. Which would make, adding the two together, 114,560 cars receiving one terminal service in the state of North Dakota? A. Something like that.

Q. That is the addition of those figures. A. It is a simple matter of addition and multiplication.

Q. They have been worked out as a matter of fact. A. Yes.

Q. Now, assuming the cost of terminal service shown on your Exhibit No. 45, to be correct, that is $830,359.01, the average for each terminal service would be $7.25 per car, instead of $4.23 per car. A. Well, of course, Mr. Armstrong, if you look at those figures carefully you will find that there is $387,709.83 that was charged for the terminal expense of other accounts, out side of transportation expense, that is, it included a certain sum of maintenance of way. Now, the interstate business passing through the state should be charged with a certain amount of the maintenance of those tracks which are so largely devoted to that class of service. Your yards would not be nearly so large if you did not have that class of service, so I cannot see how you can eliminate things on that basis and arrive at such result.

Q. Now, Mr. Little, you are asking me, instead of answering my question. A. I can not see that that is a fair proposition.

Q. On the basis of the assumption which you have

made, I ask you if the cost of terminal service shown on your Exhibit No. 45, assuming that to be correct, which is $830,359.01, divided by the number of cars that received one terminal service, which would be 114,560, as testified to, would not that make an average for each terminal service of $7.25, instead of $4.23? A. On that basis, it would be approximately as you state.

Q. That would be the result, would it not? A. Yes, sir.

Q. And for 21,936 cars, being the number which received one terminal service in the intrastate business, as testified to, the cost would be $159,036.00 would it not? A. Approximately, yes, sir.

Q. That would be the multiplying of that number of cars by the $7.25? A. Yes, sir.

Q. And that cost would apply to the 174,944 tons of intrastate freight, as per your exhibit No. 40, would it not? A. On that theory, yes, sir, that would be applied to that tonnage.

Q. Then the cost per ton for terminal service in the State of North Dakota would be about ninety-one cents, instead of 16.39 cents, would it not? A. Per ton?

Q. Yes. That is applied to the intrastate tonnage. A. It might be, on that basis.

Q. Now, Mr. Little, suppose that only one-fourth of the interstate business passes through the state of North Dakota, then the number of cars requiring the terminal services would be 21,936 cars for the intrastate service, which, of course, would not vary, and 138,936 cars in the interstate business? A. Yes, sir.

Q. Or a total of 160,872 cars both intra and interstate, adding those two figures. A. Yes, sir.

Q. Now, if this number of cars is used with your $830,359.01, which is the figure shown in your Exhibit No. 45, as the cost of terminal service, the cost per car would be $5.16, would it not? A. Yes, sir, that is assuming that the division is correct.

Q. Well, that is understood. I am asking for figures on the assumption involved in the question that I have propounded to you. A. Yes, sir.

Q. And for 21,936 cars, which would be the cars receiving one terminal service in the intrastate business, the total cost would be $113,189.76, would it not? A. Yes, sir.

Q. And applying this cost, as against 174,944 tons of intrastate freight, would give about sixty-five cents per ton, instead of 16.39 cents per ton, would it not? A. Yes, sir.

Q. Now, Mr. Little, this item, $830,359.01 referred to in your Exhibit No. 45, as terminal cost, the total terminal cost, you say included some maintenance and other charges? A. Yes, sir.

Q. Now, instead of dividing that total terminal cost as ascertained by you by the number of cars, if we had used the money factor, the result would be the same, would it not? A. Use the money factor?

Q. That is, if you made the same comparative allowances in cash, as we are making in cars, the same results would have been obtained? A. I do not quite get the point, Mr. Armstrong.

Q. Perhaps I can make myself clear. In this sum of $830,359.01, you have included, you say, certain maintenance and other charges. A. Yes, sir, maintenance of way, and maintenance of equipment, and general and traffic expenses. There are a certain proportion of all those accounts which have been added in

there on the theory that the indirect charges would be fairly apportioned, ratably, to the direct charges in the two classes of business, assuming that the entire transportation business consists in the two things, terminal and movement.

Q. Now, in dividing that total terminal cost, or determining what portion of it applies, I have assumed certain divisions of cars. A. Yes, sir.

Q. For the purpose of securing the number of cars upon which a terminal service was performed in the state of North Dakota. A. Yes, sir.

Q. And my question which I have asked you is based upon those factors. A. I understand.

Q. Taking a certain proportion of the interstate cars. Now, if, instead of taking cars and making our deductions from the total terminal cost on a car basis, we had made certain arbitrary cash deductions, figured on the same proportions, the result would have been the same. That is, it makes no difference whether you make your division in arbitrary cash deductions, or upon a basis of a fractional part of the cars, if you used the same basis your result will be the same. A. Do you mean if you had reduced the cash?

Q. Yes, and at the same time reduced the cars. No, use either one or the other? A. If you reduced the cash and did not reduce the cars, it would still further reduce the average cost.

Q. Yes, but if we discarded the cars, and used an arbitrary cash deduction, it would give the same results? A. Spread that on the tons?

Q. Yes, it would give the same results? A. The percentages remaining the same, it would probably work out the same.

Q. Now, Mr. Little, have you any doubt that the

elimination of one-half of the interstate is reasonable, or if the elimination of one-half of the total terminal cost as applied to interstate cars would be a reasonable deduction, in figuring the terminal cost per car, as you have done? A. Well, I have as to a portion of the expenses.

Q. Now, do you consider that allowance is too great or too small. A. I do not think that it would lead to fair results if you made an allowance in the transportation expenses only, because of the fact that some cars might have been handled through the state. There would be some ground, possibly, for that, but in the items of taxes and other expenses it would be assumed that, for instance in maintenance of way, your cars passing through the state might be as destructive to the track, and involve as much maintenance work, and possibly more, than the cars that remained in the state or simply had one service in the state. I think that this ought to be on the total cars.

Q. Then your answer to the question would be that you do not consider the elimination of one-half reasonable? A. As to all of the accounts.

Q. You consider that one-half would be too great an amount to eliminate? A. As to certain classes of accounts.

Q. As to interstate cars? A. Yes.

Q. Then you say as to certain of the accounts, Mr. Little? A. Yes, sir.

Q. But I am asking you as to the accounts generally. A. You are speaking of the total of all of this cost?

Q. Yes, the total terminal cost. A. Well, I could not say, Mr. Armstrong. I have not any means of judging as between the items.

Q. Will you refer to your Exhibit No. 11, please, Mr. Little? A. No. 11?

Q. Yes. A. (Witness refers to paper.) Yes, sir.

Q. It appears that the Northern Pacific, in Plaintiff's Exhibit No. 11, has separated its interstate tonnage for the year ended June 30, 1911, between interstate originating or terminating in the state, and interstate passing through the state. A. Yes, sir.

Q. I think in response to a question asked you by Mr. Donnelly, yesterday, the state admitted the correctness of those figures. That is, the state does not question them? A. We have no reason to question the accuracy of those figures, no, sir.

Q. Yes, and therefore on that basis as shown by Exhibit No. 11, the interstate, originating or terminating in the state, amounted to 1,565,503 tons? A. Yes, sir.

Q. Hence, the interstate traffic passing through the state of North Dakota amounts to about forty-three per cent of the total tonnage of the Northern Pacific Railway Company—of the total interstate tonnage. A. I think that would be a little high. Possibly of the interstate tonnage.

Q. That is what I meant to say. A. Of course, that does not include all of the tonnage. That is not all of the business handled in the state.

Q. No, but what I ask is that the portion of the interstate tonnage passing through the state is forty-three per cent of the total interstate tonnage. A. Yes, approximately that.

Q. Now, taking again the knowledge that you have acquired, and the information which you have derived while acting for the Board of Railway Commissioners, would you think that the Great Northern, or the por-

tion of the interstate traffic on the line of the Great Northern Railway Company passing through the state of North Dakota, would be about the same, or greater or less than the proportion of the Northern Pacific Interstate traffic passing through the state of North Dakota? A. The two lines carry much the same character of traffic, and I assume that the volume would be approximately the same, the relative volume.

Q. Then you think approximately the Great Northern's interstate traffic passing through the state of North Dakota would be about forty-three per cent of its total interstate traffic in the state of North Dakota? A. It would probably approximate that figure.

Q. Kindly refer, for a moment, to your Exhibit No. 45, Mr. Little. A. (Witness refers to paper.) Yes, sir.

Q. The item of $4.2318, as given by you in your Exhibit No. 45, is an average cost per car for terminal service, is it not? A. On the theory you worked out in that exhibit, yes, sir.

Q. Yes. Now, the average loading per car as shown by you on your Exhibit No. 44, is sixteen tons, is it not? A. Yes, sir, of the entire traffic.

Q. Of the entire traffic. A. Yes, sir.

Q. Then the real average cost per ton for terminal service would be 4.2318 divided by sixteen, being the average loading, or 26.44 cents per ton, would it not? A. It would be on the average of the traffic.

Q. It would be on the average of the traffic? A. Yes, sir, supposed to be adjusted on this exhibit for the lignite traffic.

Q. That must be so, Mr. Little, because the number of tons as per your Exhibit No. 40, is 3,130,010 tons,

and the terminal expense as figured by you is $830,-359.01, as per your Exhibit No. 45. A. Yes, sir.

Q. Which again would bring you an average of about 26.44 cents? A. That would be the result for the average loading for all the traffic.

Q. But figuring on the basis of the average traffic, that would give the absolutely correct figures? A. On the basis of the average traffic.

Q. Yes. If this average of 26.44 cents be substituted on your Exhibit No. 47, for the figure of 16.39 cents, as shown by you, the cost of handling lignite coal is substantially as much as the receipts under the statutory rates, assuming that the movement figures are correct, are they not? A. I assume they would be.

Q. Now, referring to the movement figures for a moment. Your Exhibit No. 40. The number of tons hauled one mile in the state of North Dakota for the year ended June 30, 1911, both intrastate and interstate, is 754,088,762, is it not? A. Yes, sir.

Q. And from your Exhibit No. 46, the average cost per revenue ton mile for movement service, is 3.2699 mills? A. Yes, sir.

Q. Now, if you multiply 754,088,762, your total ton miles, as stated by you, by the average cost per ton mile for movement, it ought to make the total movement expenses, should it not? A. It ought to make the total movement expenses, yes, sir.

Q. And that multiplication produces how much? A. (Witness makes computation on piece of paper.) It would give a result of $2,465,794.84.

Q. Now, your actual movement, referring to Exhibit No. 46, your actual movement expenses shows a variable expense of $992,503.00? A. Yes, sir.

Q. And a not variable expense of $2,067,707.02? A. Yes, sir.

Q. Or a total movement expense of $3,060,210.02, that is true, is it not? A. Yes, sir.

Q. So somewheres in your calculation you have dropped $594,415.18, have you not? A. No, sir.

Q. Well, let us take another one. A. If you want an explanation I will give it to you.

Q. Let us take it another way first. You say your total movement cost per ton mile is 3.2699 mills? A. For the lignite business.

Q. And the total ton miles would be 935,872,357 ton miles? A. I think you gave me the revenue ton miles before. Is this the revenue ton miles you are giving me?

Q. I gave that, Mr. Little, but— A. (Interrupting counsel.) Oh, yes, I see, you are taking the unit cost into the total cost, and showing the number of units that would have to be handled on that basis.

Q. Yes, figuring that that would give the correct result. A. That would be so on that theory.

Q. Mr. Little, your movement cost per ton mile of 3.2699 mills, you state, is an average as applied to the lignite coal? A. To the lignite coal traffic.

Q. Now, my questions have been asked you on the theory that your average, if you take an average that that average must hold good on all traffic, or else we have absolutely departed from your average theory. You understand that, do you not? A. Well, I understand what you are driving at, but I do not hardly agree with the conclusion, that is all.

Q. That may be true, but I will place myself, now, so that there may be no misunderstanding with respect

to the matters to which my questions are directed. A. Yes, sir, I understand.

Q. Now, coming right down to the point in question, Mr. Little, then your theory of the cost of movement service would only hold good provided each and every car contains an average load of 25.83 tons, which is the figure you have estimated the average lignite coal load at? A. It would only hold good as to each car on that assumption. These figures are applicable to the condition of the lump of traffic which showed that average.

Q. In other words, you have made an average movement cost on the basis of a loading of sixteen tons, and then applied that average movement cost to the lignite traffic which loads, instead of sixteen tons, 25.83 tons? A. I have not applied it directly. I have considered this element of difference as between the average and the lignite traffic. We have in the average traffic, for every ton of load, one ton of car weight. In the lignite traffic we have an average of 25.83 tons of live weight for sixteen tons of car weight. Well, now, it is apparent that you will not haul as much car for every ton of revenue freight in the lignite coal business as you do in the average business, which would tend to reduce that cost for the lignite business, and applying that reduced cost for the lignite business to any other traffic would not give you the total expense for the entire traffic, because the conditions are different.

Q. But, as a matter of fact, you are ascertaining your costs in the first place on a total average, and then applying them to different conditions which you say exist in a certain portion of the traffic, which you have used in computing your averages, that is true,

is it not? A. It is an attempt to show, by deduction from the average of the general conditions what would be the average under other conditions.

Q. Yes, but you have made an average on all traffic including lignite traffic, and then you have taken that average and applied it, specifically, to the lignite traffic, which, you say, differs from other transportation in certain particulars. A. I am not taking the average directly. I have taken the average cost of the gross ton miles produced under the average conditions on all traffic, and applied that to the gross ton cost in the lignite coal traffic, which makes each car of lignite cost more in the gross than each car of average traffic, but because of the higher revenue load, the higher cost per car does not rise as fast as the revenue paying load, which makes a less cost per revenue ton mile than for the average traffic.

Q. Well, now, on your theory, Mr. Little, taking the figures from your exhibits, so as to make an average cost, you show, on your Exhibit No. 46, a movement expense of $3,060,210.02, which is the sum of the variable and the non-variable expenses? A. Yes, sir.

Q. And you show, in your Exhibit No. 40, an actual number of ton miles hauled of 754,088,762, do you not? A. Yes, sir.

Q. Now, dividing the actual movement expense of $3,060,210.02, by 754,088,762, the total number of tons hauled one mile would give you an average movement cost of 4.06 mills per ton mile? A. What are the figures again?

Q. $3,060,210.02 and 754,088,762. A. (Witness makes computation on piece of paper.) That would be approximately correct, yes, sir.

Q. Just one more question, Mr. Little. In your Exhibit No. 53, you cited the rates on hardwood logs, as per Item 689 in Great Northern I. C. C. Tariff 8255. That tariff and the figures used by you in your tables apply on hardwood logs from points designated in the tariff, on the Mesabi Range, down to Central Avenue, Superior, Wisconsin. A. Yes, sir.

Q. The traffic under that tariff to which the rates apply, moves in an easterly direction? A. Yes, sir.

Q. And move the entire distance down grade, do they not? A. Practically, yes. There is quite a grade on the Mesabi Division.

Q. Grade towards the east? A. Yes, sir.

Mr. Armstrong: I think that is all.

FURTHER CROSS EXAMINATION.

By Mr. Donnelly:

Q. Mr. Little, coming back again to this question of the extra transportation expense in connection with the movement of local or way freight. You allow, in your testimony, double the average transportation cost that you describe as variable. A. Yes, sir.

Q. But you do not allow two hundred per cent of the entire transportation cost? A. No, sir.

Q. Now, it was determined, yesterday, that dividing that transportation cost, which you describe as variable, by the ton mileage, you get a figure of .784 mills? A. Yes, sir.

Q. Now, the transportation expense which you treat as constant, as shown on Exhibit 16, is $388,001.73? A. Yes, sir.

Q. Dividing that by your ton mileage, 1,284,872,-335, you would get .302, would you not? A. Yes, sir.

Q. Or a total transportation expense, eliminating the local feature, of 1.086? A. Yes, sir.

Q. And allowing two hundred per cent of the variable it would be 1.87, would it not? A. (Witness makes computation on piece of paper.) Yes, sir.

Q. So that the amount which you allow for the local would in that case be not two hundred per cent, but one hundred and seventy-two per cent, of all transportation expense except terminal, dividing your 187 by 1086, that would give you 172 per cent, would it not? A. Yes.

Q. Now, that is expressive of your judgment, isn't it, Mr. Little? A. Yes, sir.

Q. And of course if it is possible to get at the exact figures, that would be more desirable than the expression of any individual judgment? A. Yes, sir, but referring to Northern Pacific Exhibit No. 20, I think if you carry that calculation a little further, you will find that Mr. Johnson's figures are 13.83, and mine would be 18.07.

Q. Passing that, the amount which you allow for the local would be 172 per cent of the transportation expense of the through? A. Yes, sir, that is of the average of all traffic, of all classes. I think we discussed that so that we ought to call it the average of all classes.

Q. Well, now, you have assented to the proposition that it should be exact rather than proximate, if it is possible to get at what is exact? A. Yes, sir.

Q. Well, there can not be any question about that? A. Now, the desirable thing is the exact figures, there can be no question about that.

Q. Now, taking the figures upon Mr. Johnson's Exhibit No. 20, and equating them as he has done

in the second paragraph of the first sheet of Exhibit No. 22, you would get the exact relation which the lignite coal business should bear to the average, would you not? A. Well, on that theory you would.

Q. Well, now, Mr. Hillman in his testimony, I will state for your information if you did not hear his testimony, has reduced the equated figures from 267 to 219 for main line way, and from 299 to 275 for the branch lines, and on page 44 of his testimony, after equating as Mr. Johnson has done, but using these reduced figures, he states the result in this language: (Reading from record.) "We have, on the same exhibit, that is N. P. Exhibit No. 17, in through train loaded car miles, 129,648, which we leave at unit, and add 129,648 to the total equated car miles. We have on branch line trains 38,387 car miles, which we equated on the basis of 2.75, making 105,564 equated car miles, loaded, which gives us a total equated car mileage loaded of 625,396, against an actual car mileage of 346,201, or the factor which should be used for the equation of our car miles of loaded coal is 346,201 divided into 625,396, or 1.81. Now, that gives us the relation of the cost of the lignite coal transportation." Therefore, assuming Mr. Hillman's calculations to be correct, even as reduced by him it should be 181 per cent instead of 172 per cent, should it not? A. You are talking about the relation of two different things. You are talking about the relation of through and local, and I have been talking about the relation between what, in my judgment, would be a fair local cost as against the average of all classes.

Q. Is not that the figure which he has produced? The relation of the lignite movement to the average

of all classes? Isn't that the figure that he is getting at here? A. Yes, I guess that is true.

Q. Then, assuming his figures to be correct, it should be 181 per cent instead of 172 per cent? A. On the basis of Mr. Johnson's exhibits, yes, sir.

Q. And those exhibits deal with the actual figures for months taken as representative months, do they not? A. Yes, sir.

Q. And it is true all the way through, that you are not questioning the accuracy of those figures, is it not? A. Yes, but Mr. Johnson of course deals with the shorter period, and the results might not necessarily be the same.

Q. But they are the only exact figures? A. Yes, sir.

Q. Assuming that they are fairly representative, and there is no ground in the testimony upon which to question that, is there? A. Not so far, no, sir.

Q. Assuming that they are fairly representative, it should be 181 instead of 172 per cent as you have allowed? A. Yes, sir.

Q. That being so, I will ask you to again turn to the computations which you made yesterday afternoon, of the total cost of this lignite movement, as figured out by you. That figured $40,529.63, did it not, without the terminal expense? A. That is about the figure, as I remember it.

Q. Now, then, that covered the entire movement expense apart from the terminal expense? A. Yes, sir.

Q. Now, the transportation expense, or entire transportation expense, as shown on your Exhibit No. 16, would be $1,007,572.49, which is the variable transportation expense, Exhibit 16, plus $388,001.73, which

is the constant expense, is that correct? A. Yes, sir.

Q. Or a total of $1,395,574.22? A. Yes, sir.

Q. Now, all other expenses than the transportation expenses, including the taxes, but excluding terminals, amounts to, as shown on Exhibit No. 16, $1,275,742.17, for the balance of the primary accounts, and $209,-032.59 for the balance of the taxes, after deducting the terminals? A. Yes, sir.

Q. Or a total of $1,484,774.76, is that correct? A. Yes, sir.

Q. Now that $1,484,774.76, including all of the expenses other than the transportation expense after deducting, of course, the terminal expense added to the total transportation expense, makes a total of $2,880,348.98, doesn't it? A. Yes.

Q. Of that total, then, the $1,395,574.22, which is the transportation expense, would be 48½ per cent, wouldn't it? A. Yes, sir, about that.

Q. Now, then, the 181 per cent which you have determined as the exact relation, as shown by Mr. Hillman's figures, is 105 per cent of the 172 per cent which you show, isn't it? A. Yes, sir.

Q. Therefore, of those $40,529.63, which is the total movement expense, 48½ per cent of it should be increased to the extent of five per cent, should it not, in order to apply the correct relation as ascertained by Mr. Hillman? A. You would have to do that to apply Mr. Hillman's figures, yes, sir.

Q. Kindly ascertain what five per cent of that 48½ per cent of $40,529.63 would be. A. (Witness makes computation.) It would mean the addition of $982.84.

Q. Now, then, Mr. Little, the total movement expense as ascertained yesterday having been determined to be $40,529.63, the total terminal expense

was also ascertained to be $17,502.41, or a total of $58,032.04. Adding to that the $982.84, which you have just ascertained should be added to it in order to apply Mr. Hillman's figures, you would get a total of how much? A. $59,014.88.

Q. $59,014.88? A. Yes.

Q. And the total revenue of the Northern Pacific Railway Company from the movement of coal for the year of 1911, as shown by the exhibits being $58,-953.07, that would show a loss of how much? A. 61.81 dollars.

Q. So that applying the best method that you have been able to devise for ascertaining the cost of movement, and applying the correct figures as determined by Mr. Hillman, we wind up by showing a loss of $61.81, is that correct? A. That is applying Mr. Hillman's method. I do not know whether it is the best method or not.

Q. Applying the correct figures as against approximation? A. That is applying the correct figures on the basis of those exhibits, yes, sir.

Q. They give us the only accurate information that we have in the case? Exact information? A. With reference to the periods covered by those exhibits, yes, sir.

Mr. Donnelly: Yes. That is all.

Adjournment taken until 2:00 P. M.

Hearing resumed at 2:00 P. M.

Present, the counsel for the state of North Dakota.

Present, the counsel for the respective defendant Railway Companies.

FURTHER CROSS EXAMINATION.

By Mr. Dille:

Q. Mr. Little, I assume that in the preparation of the Soo tables, you have prepared them in the same manner, and following the same methods that you followed in the Northern Pacific and the Great Northern tables? A. Substantially the same, yes, sir.

Q. You ascertained the terminal expense and movement expense in the same way? A. Yes, sir.

Q. Referring to the terminal expense per car, did you include the through cars as you did in the Great Northern? A. Yes, sir, in every case.

Q. As I understand the testimony, the terminal expense is the whole line terminal expense and the same is also true of the movement expense? A. It is not the whole line in the sense of meaning the entire system constituting the Soo Line. It is the whole of the part of the line in North Dakota.

Q. Not the whole line, then? A. Not the whole line, no, sir. It does not include parts of the line outside of the state.

Q. Do you mean that to apply to terminal expense as well as movement expenses? A. Yes, sir, all the expenses, the yard expenses, as I understand it, the expenses for only that portion of the line in the state of North Dakota.

Q. I know, but how did you get that expense? I withdraw that question. I did not understand Mr. Toombs a little while ago. I understood from your testimony, Mr. Little, that the addition of one hundred per cent to the average transportation expense in the Northern Pacific and Great Northern, you deemed entirely fair to the state? A. Well, I felt that that

would be probably a conservative statement of the case.

Q. Will you please state the grounds, again, of discrimination between those two companies and the Soo in that respect? A. Well, in the first place, the large amount of branch line mileage of the Soo Line in the state, the difference in the operating conditions, and difference in traffic density on a large proportion of their line, and difference in the character of handling of the lignite traffic, itself.

Q. What do you mean by difference in traffic density? A. Well, take the Missouri River Division, for instance, which constitutes, as I remember it, practically fifty per cent of the entire mileage of the state. It is not a very large producer of traffic, and was an especially small producer of traffic during the years under consideration. They had partial crop failures in practically all of that territory. There is a lot of land tributary to the Soo Line that has just been opened. The territory is not developed, and they do not get the density of traffic in that territory that you would find on an average of the other two lines.

Q. That would have a tendency, would it not, to increase the cost of the operation and service? A. Of all train operation, which would make it more nearly comparable to the lignite train service.

Q. As I understand you, your position is that on the Missouri River Division where a large per cent of the lignite coal movement is, the traffic is not so dense, and the train loads naturally would not be as large as upon the other roads? A. That is true.

Q. Well, but I understood you that in apportioning the transportation expense you doubled, or added one hundred per cent to the Great Northern and

Northern Pacific, and only fifty per cent to the Soo? A. Yes, sir, that situation, while apparently one that would increase the amount to be added at first sight, works out just the opposite, because your expenses are relatively higher for the number of tons handled.

Q. On which line? A. On the Soo Line, and the conditions thus brought about are reflected in the entire operating expenses for the line in North Dakota for the year, and when you apportion this expense for the entire line, with that higher cost already reflected for local traffic, it would be erroneous to add as much in the case of the Soo Line as in the case of the other lines.

Q. Referring to the traffic conditions on the Missouri River Division, I assume you have reference to the fact that practically all of the movement is way freight movement? A. Yes, very largely.

Q. And your idea is that in that instance the difference in the transportation expense is naturally reflected without any addition? A. Yes, sir.

Q. Assuming, for the purposes of this question, that the Missouri River Division has never been constructed, and is not involved in this case. What would you say as to the residue of the Soo and the conditions surrounding the transportation on lignite coal, as compared with the other two roads? A. Well, generally speaking, I know that the number of tons one mile per mile of road for the Soo in the state is considerably smaller than on the other two lines, and that of course would be reflected in the operating conditions of the Soo Line as against the other two lines, as to the lignite traffic on the Soo Line outside of the Missouri River Division. I am not very well posted as to it, except in a general way, as to the

relative volume of the shipments, but I do not know as to the character of handling.

Q. The cost of operation of both through and way freights on the Soo, leaving out the Missouri River Division, would be at least equal to that of the other two roads? A. My idea would be that on account of the lesser tonnage density, you do not operate at as high an efficiency as the Great Northern or the Northern Pacific.

Q. Do you know that, or just drawing a conclusion without any actual investigation on your part? I am speaking about the service. Do you know anything about the service, as compared with other roads, sufficiently to testify? A. I have not figured out your average train, and without differentiating between the average trains and knowing the tractive power of your locomotives, you could not determine the relative efficiency, absolutely. I am speaking only from a general idea of the situation, gathered from the mere facts of density.

Q. Well, taking in the transportation expense on the three roads in North Dakota, leaving out the Missouri River Division, what would you say as to whether that would be practically the same or not? A. It would be pretty hard to say. I really do not know, Mr. Dille.

Q. You are not prepared to say that in the way freight, leaving out the Missouri River Division, that the same percentage of transportation expense should be allowed that would be allowed on the other roads? A. I could not say, no, sir.

Q. Your distinction between the three roads was based upon the presence of the Missouri River Division, and the large volume of the lignite coal traffic

moving on that division? A. Very largely, yes, sir.

Q. Would it not have been a fair method of computation under your theory, to add no percentage at all for the lignite coal carried on the Missouri River Division, and add to the traffic moving on the main line, or on the other lines excepting the Missouri River Division, the same that would be added in the case of the Great Northern and the Northern Pacific? A. Well, I could not say, because in the first place I have taken a mixed average as the result of operating the entire system, including the Missouri River Division.

Q. I know, but your testimony in chief was only an opinion, was it not? You did not go into details to ascertain the percentage? A. The percentage to be added, you mean?

Q. Yes, I am referring, now, to the Soo Road. A. My reason for adding the fifty per cent only—

Q. (Interrupting the witness.) Please answer the question. A. Oh, it was an opinion based on certain facts, and at least one case that was adjudicated as to rates in that territory.

Q. Your opinion as to the percentage to be added as to the three roads was not based upon data taken from the companies' books as to actual cost, but was an opinion based upon your general opinion or information on the subject? A. Well, based on the general information, and the testimony given in another case.

Q. What other case was that? A. In the case of Keys vs. Amidon I think it was testified by railroad men in that case, or, at least, the opinion of the judge was, I believe, that fifty per cent of the transportation expenses were added in that case.

Q. But the Soo was not a party to that case, was it? A. Keyes vs. the Northern Pacific?

Q. The Soo was not a party to that case. The Northern Pacific was a party to that case, was it not? A. I am not so sure as to the parties in the case—all of the parties.

Q. I don't care about that. What I want to know is this: You have not assumed to get these percentages as to any other roads after an examination of the books of the company, and from data obtained from such books? A. No, sir.

Q. You don't know of any facts that would indicate that a different percentage should be used on the main line of the Soo than that which would be used on the main line of the other two roads? A. Nothing, outside of what I have just stated in a general way.

Q. The evidence shows that about sixty-eight per cent of the lignite coal on the Soo Road in the year ending June 30, 1911, moved on the Missouri River Division, and the other thirty-two per cent of the coal on the rest of the line. Would it not be fair, in your judgment, to add no percentage for the Missouri River Division, and add the same percentage for the other thirty-two per cent or what is moved on the balance of the line, as should be added in the case of the other two companies? A. Why, that might work out fairly.

Q. Mr. Little, returning to the subject that I had passed. Can you give us the population of the counties along the Soo Road on the Missouri River Division? A. No, I could not.

Q. Can you give us the population of the various cities along the Soo Road in the state of North Dakota on the Missouri River Division? A. Oh, not accurately. I could state roughly what they are, approximately.

Q. You can state approximately what the different

towns—what the population of the different towns is? A. Yes, approximately.

Q. Give us those figures. A. For each town, you mean?

Q. Yes. A. I do not know as I could name each town in succession, and give you the population, but I mean I do know, in a general way, how they will run. I have been over that line several times.

Q. Well, you may do so. A. I should say they run anywhere from fifty to a hundred in the smaller towns, to Bismarck, where we claim six or seven thousand, but most of them, like Wilton or Washburn, some of the largest inland towns, from two hundred at Wilton to about four or five hundred at Washburn. Max probably about two or three hundred. Plaza about a hundred and fifty, or thereabouts.

Q. Can you tell us the kind of industries on the Minnesota Division of the Soo that consume lignite coal? A. On the Minnesota Division?

Q. I mean the Missouri River Division? A. Well, most of the coal on the Missouri River Division, I should say, was for the use as fuel—I mean fuel in residences and business buildings and hotels—and a certain amount of it for electric lighting plants.

Q. Do you know the extent of industries outside of that using lignite coal for fuel on the Missouri River Division? A. Oh, I do not know that there is any outside of that, no, sir.

Q. Can you give us the population of the counties through which the Great Northern and the Northern Pacific run in North Dakota? A. No, sir.

Q. Or the towns or cities? A. Not except in a general way. I have been over those lines, of course, and know, in a general way, what the character of development is.

Q. Or the names or numbers of industries consuming lignite coal? A. No, sir, I could not.

Q. The lignite coal is used, locally, there, almost exclusively, is it not? A. Practically all local consumption, yes, sir.

Q. How long have you lived in North Dakota? A. I have lived there this last time for about eleven months. Previously to that, for about a year.

Q. How long ago prior to the last time? A. About six or seven years ago.

Q. All the balance of the time you have lived elsewhere, in Minnesota and elsewhere? A. Yes, sir.

Q. Mr. Little, will you turn to your Exhibit No. 32, what was your purpose in making that exhibit, and what do you claim for it by way of proof? A. The purpose was to assemble the elements of cost which we arrived at in the previous exhibits, and adding the terminal expense to the movement expense, obtain a rate which would yield operating expenses and taxes for each of the distances corresponding to the distances used in the legislative rates, and to make a comparison with such rates in that way.

Q. Do you mean by that that you meant to determine the revenue per ton mile that the company would receive for hauling lignite coal? A. I meant to determine the amount that would be required to pay operating expenses and taxes for a ton of coal moving, say, ten miles, and for a ton of coal moving, say, fifty miles.

Q. I suppose your purpose was to get some basis for determining the revenue received by the Soo in the carriage of this coal, and also the operating expense per ton for carrying the coal? A. In this exhibit I

tried to arrive at the operating expenses and taxes for a ton for certain distances.

Q. I notice you give the average haul per ton for lignite coal as 41.76 miles? A. Yes, sir.

Q. Then you give the statutory rate as forty-six cents for fifty miles? A. Yes, sir.

Q. Then you give the expense per ton for fifty-mile hauls, as 37.7 cents? A. Yes. sir.

Q. And the profit per ton is 8 3/10 cents? A. That would be deducible by substraction, yes, sir.

Q. That, I suppose, was one of the purposes of having this table—to be able to draw that conclusion? A. Yes, sir, that would be one of the purposes.

Q. Now, do you understand that table to actually represent the conditions that existed on the Soo during the time covered by this table and your testimony? A. The expenses represent the actual conditions, and the exhibits were the application of certain traffic data to those expenses to obtain what I think was a conservative estimate of the conditions.

Q. Did you understand that it applied to the conditions as they actually existed on the Soo? A. Of course I do not know for any ton, and I don't believe that anybody else does, t[illegible] exact cost for handling.

Q. This entire table was based on the theory, was it not, that the Soo received the statutory rate, on its own line? A. Yes, sir.

Q. And no allowance was made for any different rate excepting the local rate on its own line? A. No, sir, there was, as I understand it—they are entitled to charge the statutory rate.

Q. You are familiar with the statute, are you not? A. In a general way, yes, sir.

Q. You are familiar with the fact that in a joint

shipment, say from Wilton to some point on the Northern Pacific, that a through rate is made according to the distance, and pro-rated upon the companies? A. Yes, sir.

Q. And the longer the distance, the lower the rate? A. Yes, sir.

Q. And in such joint shipment, neither company would receive anything near the local rate? A. That is generally true, depending largely on the distance. Of course they would not receive the local rate in any case of that kind, hardly.

Q. The longer the distance, the less the rate, and pro-rating it, each would get less than local? A. Yes, sir.

Q. Now, this table, I believe, was introduced yesterday, wasn't it? A. Well, now, as a matter of fact, during the year 1911, 69,541 tons, or thirty-four per cent of the total tonnage on the Soo moved from Wilton to Bismarck, and then over on the Northern Pacific to some point on the Northern Pacific, which company received—each company receiving merely a pro-rata of the total rate? A. That is true. I assume that that is true.

Q. Well, the Soo, on that tonnage, received 29.3 cents per ton. The statutory rate is forty cents per ton? A. Yes, sir.

Q. Now, in counting up the revenue on the basis this exhibit would seem to authorize, and taking into account these joint rates, and this tonnage that I have mentioned, makes a difference of about five thousand dollars in the revenue, does it not? In other words, over five thousand dollars less revenue than your table would seem to show? A. Because of the Soo proportion instead of the local?

Q. Yes. A. I have not figured it out. I presume there would be about that difference.

Q. Your tables have been prepared by reducing the revenues and expenses to ton miles, giving the ton mile cost? A. The results arrived at were secured through separation of freight and passenger, and then the application of an average gross ton mile cost, and then the deduction of a revenue ton mile cost under different conditions of loading from that gross ton cost.

Q. Well, now, in getting the ton mile cost, to make your figures of any value, it was necessary, was it not, to get into that cost every item that properly belonged there? A. Yes, sir.

Q. And if any substantial item were omitted, that would be reflected in your figures? A. Yes, although I think there is a certain amount of leeway between the cost that I have produced here, and the actual cost, with respect to some things.

Q. Well, the cost of hauling the coal ought to go in? A. Certainly.

Q. And the cost of hauling the car ought to go in also? A. Yes, sir.

Q. The cost of hauling the empty car ought to go in? A. Yes, sir.

Q. But it did not go in, did it, in your figures? A. Yes, sir.

Q. Do you mean to say that you, in the Soo Tables, included the cost of hauling the empty cars? A. Yes, sir.

Q. How did you include it? A. Well, in the first place, the cost of hauling all the empty cars used on the Soo System became a part of the operating expenses for handling the business transacted in the state of North Dakota. The cost of handling each car used

to handle any part of the traffic was likewise a part of the operating cost. But the costs were all apportioned on the basis of loaded cars, and the gross tons of loaded and empty cars for the entire traffic, with the distribution of all movement expenses over the total gross tons. The gross ton cost remains the same in all of the applications in these exhibits. The gross ton cost figured on the average traffic was used as the gross ton cost for the lignite traffic, but where there was a higher loading for the lignite traffic there were fewer tare tons in the total gross tons, which reduced the revenue net ton cost. The gross ton cost was figured at the average in every case.

Q. Did you assume that the empty car haul was equal for all kinds of freight? A. That was one of the assumptions, yes, sir.

Q. You covered the empty car movement in the Soo case in the same way that you did in the Northern Pacific and Great Northern? A. Yes, sir, that is, the empty car movement was considered a part of the indirect and over-head expense or cost.

Q. You made all the tables in the same way? A. On that feature of the cost, yes, sir.

Q. If you succeeded in charging up the cost of the transportation of the empty lignite coal cars to the one company, you did to the other, is that right? A. Of course the cost is included in the totals, and it is only a question of whether enough is included in the case of the lignite charges. That is pretty difficult to answer.

Q. You made no attempt to ascertain accurately the empty car mileage? A. No, sir, I did not.

Q. Or the empty lignite coal car mileage? A. No, sir.

Q. Mr. Little, in your method of charging up the empty car movement to the lignite coal business, if it should turn out that the empty car movement was greater in the lignite coal business than in the other kinds of business, then your estimate would not be accurate? A. No. sir, it would not.

Q. You have simply taken the general average without regard to the actual facts? A. Well, yes, that is true, I had no statements showing the actual conditions. By Mr. Dille: That is all.

Mr. Little was then excused, subject to recall for cross examination at the instance of the plaintiff.

H. A. LITTLE,

a witness on behalf of the plaintiff having been heretofore duly sworn, was recalled for re-direct examination, and testified as follows:

RE-DIRECT EXAMINATION.

By Mr. Young:

Q. Mr. Little, on cross-examination upon your exhibits bearing on the lignite coal business of the Northern Pacific Road, you were asked some questions regarding your charge for empty car haul, the Northern Pacific Exhibit No. 19 showing that the empty car mileage on the lignite coal traffic equals 72.23 per cent of the loaded, while the empty percentage of loaded for all business is 18.43 per cent. I believe you testified that in your exhibits you adopted the general average for all business instead of the higher percentage adopted by the Northern Pacific? A. Yes, sir, that is true.

Q. In connection with that cross-examination you

stated that you had made some investigation of the empty car haulage in connection with the lignite coal business on the Northern Pacific, which led you to a conclusion that that percentage of 18.43 was more nearly correct than the percentage of 72.23 per cent as shown on Northern Pacific Exhibit No. 19. Is that correct? A. I made an investigation which led me to believe that the amount of empty car mileage which was charged against the lignite coal traffic should not have been charged against that traffic, or should not have been entirely charged against that traffic.

Q. What was the character of that investigation? A. In the first place I checked the station records at Dickinson, North Dakota, for the year ending June 30, 1911, and ascertained the date and car numbers of the cars of lignite coal moving from Lehigh to Dickinson, a distance of five miles. I then took the dates and car numbers of those cars and submitted them to the Northern Pacific Railway with the request that their car accountant check the subsequent movement of those cars and determine what the next point was at which a load was secured, what was the character of that load, and what was its destination. Also, on what date that load was secured.

Q. And was this information furnished by the car accountant as requested? A. It was.

Q. The information was furnished in the form of tables, was it? A. Yes, sir.

(Paper produced by witness, and marked, for identification, "Plaintiff's Exhibit No. 54.")

Q. Is Plaintiff's Exhibit No. 54 the car accountant's report complying with your request for this information? A. Yes, sir.

Q. And how long a period does that cover? A.

That covers the fiscal year dealt with in all the statistics in this case.

Q. It is a report upon how many cars during this period? A. Eight hundred and forty-nine cars.

Q. Now, that table, or series of tables, Plaintiff's Exhibit No. 54, shows the point of origin of each car, does it? That is, the point from which the car was moved to Lehigh in the first instance? A. No, sir, it shows the point at which the load subsequent to the movement from Lehigh to Dickinson was obtained. It shows the other side of the proposition. It does not show the mileage into Lehigh. It shows where the next load was received.

Q. It takes the history of the car from the time it is loaded at Lehigh? A. From the time it arrives to discharge its load at Dickinson.

Q. And then shows the history of the car subsequent to the unloading at Dickinson? A. Yes, sir.

Q. For instance, if the car, after the lignite was removed at Dickinson, went empty to Waldon, it shows that? A. Yes, sir.

Q. And what was the point of its destination after it left Waldon? A. Yes, sir.

Q. Now, have you gone through this exhibit and determined how many of the cars were reloaded at Dickinson? A. I have.

Q. And how many did you find reloaded at that point? A. I found that there were one hundred and sixty-three cars reloaded with freight destined to interstate points, and one hundred and six cars reloaded with freight destined for other points in the state of North Dakota, a total of two hundred and sixty-nine cars (269) or approximately thirty one and seven-

tenths per cent of the cars accounted for under load into Dickinson.

Q. Now, practically one-third of these cars, then, were reloaded at Dickinson either for intrastate or interstate shipments? A. Yes, sir.

Q. And the empty mileage of the car from the point of its origin to Lehigh has been charged, as you understand it, to the lignite shipment from Lehigh to Dickinson, has it? A. As I understand it, the entire empty mileage into Lehigh was charged to the shipment from Lehigh to Dickinson, yes, sir.

Q. The traffic from Dickinson to the point of destination of the car loaded at Dickinson, was not burdened with any of the empty haulage of the car, into Lehigh? A. Well, that has not been considered in this case, under the theory that I understand Mr. Johnson pursued, no empty mileage would be charged against that movement. That is, there was no empty mileage run to secure that load.

Q. Can you state, generally, the range of the shipments out of Dickinson after the lignite was unloaded? That, of the cars which were reloaded at Dickinson? A. It consisted of various commodities, principally brick, and grain and flour. They have a flour mill at Dickinson, and I find that they ship flour to quite a wide territory. There are several here on the first sheet, including a car of flour on the 22nd, to Butte, Montana, on the 15th of July, to New Salem; one on the same day to Tacoma, Washington, and one on the 18th of July, to Duluth, Minnesota.

Q. Did you find any heavy interstate shipments to the west, to long distances? A. Well, such a shipment as flour from Dickinson to Tacoma is a very long haul, involving a very large amount of revenue, be-

tween four and five hundred dollars I think, on the average car. This statement in the case of the Dickinson business would serve as a check on the time involved in unloading coal at Dickinson reloading the car ready for billing it out of Dickinson, and on that point I find that there were several cars, for instance, N. P. 24396 billed out of Lehigh July 6th, with coal for Dickinson, was loaded at Dickinson and re-billed from there on July 7th, with flour for Billings, Montana. I find Northern Pacific 45350 was billed out of Lehigh on the same date, and was forwarded from Dickinson on July 7th, with flour for Miles City. The time consumed in handling the coal and reloading the other shipment was under the maximum free time in each case.

Q. And you took that matter into consideration in arriving at your conclusion, that the empty car charged to lignite was hardly all chargeable to that traffic? A. That was considered. Another factor that I considered was that a great many loads are shown to have been obtained at points west of Dickinson. Empty cars were needed in this territory to take up those loads, and the short haul of five miles from Lehigh to Dickinson was merely incidental, we might say, to securing other long haul loads.

Q. The lignite coal traffic from Lehigh to Dickinson constitutes about what percentage of Northern Pacific traffic? A. I know it is the largest shipping point on the Northern Pacific, and the largest movement is between those two points as shown in the analysis of the movement of the traffic which Mr. Johnson prepared and submitted in the form of monthly statements.

Q. Have you now stated all of the reasons for be-

lieving that the empty car mileage charged to the lignite business should not be any greater then the empty car mileage charged to the average of all business?

Mr. Donnelly: I don't think he has said that, Mr. Young.

By Mr. Young: I think he said that on cross-examination. A. I have nothing further to say in connection with that subject, no, sir.

Q. I believe that in the cross-examination you were asked regarding your authority for the division of movement expenses between variable and non-variable? A. Yes, sir.

Q. Have you made any comparison of the division made by yourself and by Mr. Johnson in his Exhibit No. 20, to see how these compare? A. Yes, sir.

Q. You may state what you have found. A. I found as the basis of the exhibit introduced by Mr. Johnson to show the relative cost of through trains on the main line, way freights on the main line, and branch line freight, he used only certain of the transportation expenses. In my method I used a portion of the expenses as being variable between those classes of trains. I find that he used, in that exhibit, the engine-men's wage expense which was included in my exhibit, fuel for road engines the same as used in my variable expenses, and other supplies for road engines, which was used by both myself and Mr. Johnson, road trainmen as used in each case. Mr. Johnson used repairs of road freight engines, which I do not use, and I used engine house expenses and water for road engines, and lubricants for road engines, which he did not use. The totals for road engine repairs for the year, as compared with the other expenses which I used on the year's business would yield about

the same—a little greater charge in the case of the Johnson separation of those expenses as against mine. For all practical purposes there is very little difference between the items selected in my statement and the items selected in Mr. Johnson's.

Q. That is, the total of all his variable items is for all practical purposes the same as the total of your variable items? A. It would be approximately the same.

Q. Now, you were asked on cross-examination yesterday, regarding the average variable expense as found by you in your Exhibit No. 16, Northern Pacific Exhibit No. 16. The corrected figure which you found in that exhibit is .784 mills per gross ton per mile, that is correct, is it not? A. Yes, sir.

Q. And, as I recall it, that is what you term a mixed figure? A. Yes, sir.

Q. You mean by that that it is an average for all classes of service? A. Yes, sir.

Q. And by all classes of service you mean main line through, main line way, and branch line freight service? A. Yes, sir.

Q. Can you state how that average determined by you compares with the average cost, for main line through which is shown by Mr. Johnson in his Exhibit No. 20? A. Yes, sir.

Q. What is it? A. I find that the cost per one hundred ton miles determined by Mr. Johnson for main line through freights is 5.18 cents, while the average expense which I determined as a mixed figure for all classes of business is 7.84 cents per one hundred ton miles, which is approximately 151.35 per cent of Mr. Johnson's through freight cost.

Q. The 5.18 used by Mr. Johnson is not a mixed figure? A. As I understand it, it is not.

Q. Now, to arrive at your main line way freight cost, you doubled this variable of .784? A. Yes, sir.

Q. So that the cost of your main line way service, after doubling this variable is what? A. I have reduced that figure also to the one hundred ton mile basis, and I find that Mr. Johnson arrives at a figure of 13.83 cents per one hundred ton miles, while the figure that I used is on the basis of 15.68 cents. His ratio of main line way freight to through freight is 267 per cent. The ratio of the figure that I used to his main line through freight is on the basis of 302.7 per cent, which would be apparently too much.

Q. Your charge, then, for that service, is greater than Mr. Johnson's? A. My charge is greater than Mr. Johnson's, yes, sir.

Q. And you find the same cost for branch line as for main line way? A. I made no difference between branch line and main line way, no, sir.

Q. How does your cost adopted for both of these classes, main line way and branch line compare with the branch line cost found by Mr. Johnson? A. Slightly in excess of the branch line cost found by Mr. Johnson.

Q. The charge as shown on his Exhibit No. 20, is 15.5? A. 15.5 cents per one hundred ton miles, yes, sir.

Q. There was some assumption relative to the cost of the service in the lignite traffic, I believe, your exhibits showing that you find that the cost of the lignite service is 172 per cent and a fraction of the cost of the average of all service? A. That is on the basis of local cost being double the average of cost for all classes of service as to variable expenses.

Q. And the exhibits prepared by Mr. Hillman show

a cost for lignite of something like 180 per cent of the average of all service? A. Mr. Hillman's exhibits I think show something over 180 per cent for the cost of lignite as compared with the through train cost, not as compared with the average of all classes of traffic.

Q. You were asked as a part of your cross examination, to find the cost of doing the lignite business by adopting the percentage shown by Mr. Hillman? A. Yes, sir.

Q. And to that end you were asked to take five per cent of the cost as shown on the basis adopted by you, and add to the total cost of the lignite business so as to show an increase of $982.84 in the cost of doing the lignite business? A. Yes, sir.

Q. Now, have you anything to say relative to the use of that factor of five per cent? A. I think that the preceding statements show that where I have used a local cost computed on double the variable expense for the local as compared with the average, that I have in fact used a ratably higher expense than Exhibit N. P. No. 20 seems to indicate for way freight service; and while 172 per cent of the average mixed cost of all looks smaller than 180 per cent of the main line through cost, we are dealing with two entirely different quantities. In the case of the 180 per cent of the main line through, we are dealing with a factor of 180 per cent of the cost of 5.18 cents per one hundred ton miles, while in the case of the 172 per cent of the mixed average we are dealing with 172 per cent of 7.84 cents per one hundred ton miles—two entirely different sets of figures, which are not comparable on a percentage basis.

Q. And you would say, then, that the use of five per cent of the cost as found by you in an attempt to

apply the Hillman figures would not be a fair way to arrive at the cost of conducting the lignite coal business? A. No, sir, it would not be a proper computation.

Q. Because it is a mixture of methods? A. Yes, sir, it is a mixture of percentages relating to different figures.

Q. The five per cent which you were asked to use, as I understand it, represents the excess of the 180 per cent over the 172 per cent? A. Yes, sir, as I understand it.

Q. In connection with the cross examination on the Great Northern case, you were asked to make some calculations in connection with the production of the total movement expenses were you not? A. Yes, sir.

Q. Since the cross examination have you made any further computation relative to this particular point? A. I have, yes, sir.

Q. And what is the nature of that computation? Explain what you have done, and what your results have been. A. I might state, in the first place, to fully cover the situation, that I was asked to use the average cost figure arrived at to cover the lignite loading as the basis of building up a total expense for the entire traffic. Manifestly, where the lignite loading was approximately ten tons heavier than the average of the entire traffic, the expense per ton would be less and the use of the entire tonnage under the other conditions would not produce any expense which was actually experienced in the handling of the entire tonnage. I worked out, then, what the average cost figures would be under the average conditions presented by the Great Northern operation. I took the .65603 mills, which is shown on Great Northern Exhibit No. 46, as the vari-

able cost of a gross ton per mile multiplied that by thirty-two tons, which is the gross tons per car, and obtained a cost per car of 2.099296 cents for the variable portion of the movement expenses. I reduced that to the basis of the revenue ton by dividing the last sum named by sixteen, the number of revenue tons per car handled, and arrived at the figure of 1.31206 mills per revenue ton mile for variable expense. I then took the 1.367 mills which is the cost per gross ton per mile of the constant expenses, and by using the same calculations as previously given for the variable expenses I arrived at a cost of 2.734 mills per revenue ton mile for the constant expenses of movement. Adding 1.31206 mills, which was considered to be variable expense, and the 2.734 mills, I obtained a total cost of movement of 4.04606 mills per revenue ton mile. Taking 754,088,762 net tons, multiplying that by 4.04606, the cost per net ton arrived at as previously stated, I would obtain a total movement expense of $3,051,088.38, as compared with the total movement expense shown on Exhibit No. 44, of $3,060,010.03, and computing the operating expenses on the method that I used, shows a shrinkage of $8921.65, due to the fact that some of the figures in obtaining the gross ton cost were not carried out quite far enough.

Q. Now, have you gone further and determined how that variation would affect the lignite business? A. It would make a very slight difference. For instance on the difference between the net ton cost obtained by dividing the total movement expense by the total net tonnage and the net ton costs which are built up inductively by me by my method, would be about (14/1000,) fourteen thousandths of a mill, which, on two hundred

thousand ton miles would only amount to about two dollars and eighty cents.

Q. The calculation, the details of which you have just given us is made for the purpose of showing that there was not dropped a sum of $594,000.00 as was indicated in the cross examination on that point? A. Yes, sir.

Q. And instead of dropping that amount, you do drop in this calculation, only the sum of $8921.65? A. Yes, sir.

Q. In connection with the examination on the same case, you were asked regarding the terminal expenses which you charge to the interstate business. Now, in your division of expenses, how did you assign the terminal expenses? A. I assigned terminal expenses indiscriminately on the entire gross ton mileage, on the loaded cars and their contents.

Q. And your terminal expense items include all yards, does it not? A. Yes, sir.

Q. And in your assignment you proceeded upon the theory that interstate business really received some element of service in each yard whether it passes through or the shipment terminates at that point? A. Yes, sir.

Q. So that upon the theory adopted by you, it would be improper to eliminate the terminal expense on the overhead tonnage, as was indicated by Mr. Armstrong? A. Yes, sir.

Q. Have you, in preparation for this hearing, Mr. Little, made any investigation as to the switching service furnished by the various roads interested here, at the coal mines, or at points where lignite coal is shipped? A. Yes, sir, in a general way.

Q. And what have you to say as to the character

of that service? A. Switching service ordinarily includes the spotting of a car at an industry track for loading, and in the case of the switching of a car to receive a load of wheat, at an elevator, that elevator may be the middle house at a certain town, and the spotting of a car sometimes involves the replacing of a great number of other cars. The switching ordinarily received at a coal mine siding is not at all comparable to the switching performed for ordinary commercial service. For instance, at the larger coal mines, at the mine at Wilton, and on the Soo Line, I know that the bulk of the cars are set in on beyond the mines, so that they will run up on an elevation they have there, and the cars are dropped down by gravity and spotted at the coal tipple, and then picked up by a cable and pushed on out of the way and weighed at the mine scale, all by the use of the cable, involving no such service as spotting a car at an elevator or spotting the individual cars at a single industry would involve. I think that is true in a general way as to conditions at some of the larger points on the other lines, possibly including Noonan and Lehigh. I have been through Lehigh, and I know they have a large tipple there, and I think they operate by steam, but I am not sure. In any event, the constant engine service is not required, or the constant individual spotting of individual cars is not required in the coal traffic.

Q. The cable service which is used to move the cars into place and onto the scale and on the side-tracks, is not furnished by the railroad companies? A. No, sir, it is furnished by the coal companies in each case.

Q. So that from your investigation you would say that the switching service furnished by the railroads at these points is a less costly service than the ordinary

switching service, is that your conclusion? A. Yes, sir.

Mr. Young: That is all.

RE-CROSS EXAMINATION.

By Mr. Donnelly:

Q. Mr. Little, referring to the movement of coal from Lehigh to Dickinson. That is the shortest haul that is indicated in any of the exhibits, is it not? A. Yes, sir.

Q. Dickinson is one of the largest of the points to which coal is delivered? A. Yes, sir.

Q. The opportunities for reloading cars there are greater than they are at most of the other points? A. I assume so. They have several industries which are not ordinarily found.

Q. You would say so, would you? A. Yes, sir.

Q. You understand that in determining that the empty car mileage was about seventy-two per cent of the loaded car mileage, Mr. Johnson took the empty car movement up to the coal mine? A. As I understand it, yes, sir.

Q. Now, of course there must be some point at which the empty car movement incident to the moving of a load ought to end. You can take it either as the empty car movement in going for the load, as Mr. Johnson has done, or the empty car movement after the load of coal has been delivered at the destination before that car gets another load. Either one of those two methods might be pursued for the purpose of determining what was the empty car mileage incident to the moving of the load, might it not? A. One or the other, yes, sir.

Q. Yes. Now, if credit is to be given to the

loaded coal, or to the coal movement, for the load which the car gets at Dickinson after the coal has been left there, the empty car movement ought also to be increased for the load that it does not get there, if it moves away empty, isn't that true? A. We are taking in this case, as the standard of empty car movement, the movement of the empty into the point of origin of that load.

Q. Yes. A. The minute it discharges that load I can not understand why the commodity should be charged, or held responsible for the securing of subsequent loads.

Q. Undoubtedly the commodity should not be charged with anything that occurs subsequently, or credited with anything that occurs subsequently, but if you adopt the course of saying that the proportion of empty car mileage to the loaded car mileage is to be determined by considering that load which it picks up at Dickinson, you are considering something that occurs subsequent to the delivery of the load, on your side of the case. You are not considering the whole thing as determined with the delivery of the load there. A. I am considering it simply from a consistent view of all cars moved to the loading points. The starting point in this case was that of the empty moved to a loading point. Here is an empty that has reached a loading point without apparently any expense to that particular commodity, which is that subsequent load. Now, I can not see the equity of charging the entire expense to the lignite traffic, and none, on that theory, to the subsequent load.

Q. Well, if, being at Fargo, North Dakota, you require a car for the purpose of carrying any commodity a distance of one hundred miles, and the rail-

road company in order to give you that car is obliged to move it empty one hundred miles, up to Fargo, and you get it there and put your load in it, and it moves one hundred miles to its destination. You would say, in that case, the empty car mileage was one hundred per cent of the loaded car mileage, would you not? A. Yes, sir.

Q. And that would be true regardless of what is done with that car when it reaches its destination, would it not? A. That would be true but the average would be affected. If you take an average proposition.

Q. The average might be affected one way, but if you are not going to allow the history of the transaction to end with the delivery of the commodity at its destination, and are to consider subsequent matters that tell in your favor, you ought also to consider the subsequent fact that tells against you, and if the fact that it gets a load at its one hundred mile destination is to decrease the proportion of empty car to loaded car mileage, the fact that it moved empty away from there in another instance ought to increase the proportion of empty to loaded car mileage, ought it not? A. I can not believe that it should.

Q. Very well. Now, you stated that the .784 mills ascertained as the variable transportation cost per gross ton mile, which you double in the case of local movement, is equivalent to three times the cost which Mr. Johnson's Exhibit No. 20 shows for main line through freight movement? A. I do not think I so stated. I stated that it was approximately 151.35 per cent. You, in your question, stated that it was approximately three hundred per cent.

Q. Yes, I did. You say 151.35 per cent? A. Yes, sir.

Q. Is that of the total transportation cost of the variable? A. That is the 151.35 per cent of Mr. Johnson's expense, as determined in his Exhibit 20, reducing his figure of 5.18 to a single ton basis.

Q. When doubled to get at the main cost for local, it is three hundred per cent? A. Yes, sir.

Q. But it is true, is it not, that .784 is reached by you with a complete disregard of the empty car mileage. You treat that as an overhead charge, you say? A. I do, yes, sir.

Q. If, for example, this ton mileage which you divide into the 1,007,572.49 on your Exhibit No. 16, you should increase it by the addition of the gross ton mileage for the empty car movement, your divisor would, of course, be larger, and your quotient .784 would be less? A. Yes, sir.

Q. So that that figure is produced there by the disregard of a considerable gross tonnage represented by empty car mileage? A. Yes, sir, there would be, of course, some omission there.

Q. Did you correct those exhibits, No. 16 and No. 17? A. No, I had entirely overlooked that. I can correct those and mail you corrected copies, to all concerned and interested.

Q. It is true, is it not, that as corrected they would represent at least for the longer distances, sums in excess of the rates fixed by the statute that is here under attack? A. Beginning at one hundred miles, the rate would be—the statutory rate, sixty one cents, allowing for the higher local cost, 62.94 cents. It begins to exceed at one hundred miles.

Mr. Donnelly: That is all.

By Mr. Armstrong: (On behalf of the Great Northern.)

Q. Mr. Little, as a result of the calculations you have made today, you reach a figure showing the movement cost per ton per mile of 4.04606 mills, as against 3.2699 mills? A. I have not that figure—that other figure, but I think that is approximately it.

Q. Well, it is shown on your Exhibit No. 46? A. Yes, sir.

Q. Then referring to your Exhibit No. 47 that you introduced here, if you have that handy, if you please. A. (Witness refers to paper.) Yes, sir.

Q. In the third column, Cost on Basis of Average, the cost of movement would be, according to your latest figures, 4.04606 cents, instead of 3.27 cents as indicated thereon? A. No, sir.

Q. Why, not? A. For the reason that while the cost per gross ton per mile is the same under different conditions of loading, or practically the same, probably, the cost per net ton would not be the same where the loading is increased. The cost that you mention is the cost per net ton on a loading of sixteen net tons, which is the average of all the traffic in North Dakota, while the lignite traffic shows a loading of 25.83 tons, and the weight of the car is therefore spread over a greater net tonnage, with a result of a less cost per net ton in the case of the lignite loading.

Q. But I understood from your testimony that the movement cost as figured by you just now was 4.04606 mills per ton per mile as against 3.27 mills per ton per mile? A. The cost of 4.046 is the cost figured on the basis of the average traffic. The other figure which you gave me is the cost adjusted to meet the conditions in the lignite traffic.

Q. Well, Mr. Little, then if you go back to your average figure of 3.2699 mills per revenue ton mile as shown on your Exhibit No. 46, instead of 4.04606 mills as computed by you this afternoon, and apply it as I proposed on cross examination, to the sum of 754,088,762 ton miles, you then lose the 594,000 dollars which your changed figures today were designed to account for? A. I could not fairly use the figure that is shown on Exhibit No. 46 on the net ton mileage which you have given. It is not intended to meet that purpose, and it is not the proper figure to apply. I can explain that if you wish.

Q. Then your average cost as figured on the basis of 3.2699 mills per revenue ton mile would only apply if each car had an average loading of 25.83 tons? A. It would only apply in such portion of the traffic as had that loading, yes, sir.

Q. Now, Mr. Little, in the course of my examination the other day, and referring to your Exhibit No. 45, I submitted to you certain calculations which, if the theory I adopted was correct, would make an average of 26.44 cents cost per ton for terminal expense, which, if my theory is correct, should be substituted for 16.39 cents for terminal expenses on Exhibit No. 47. A. Yes, sir, I remember your computation.

Q. And if that substitution of 26.44 is made for 16.39 cents, then the cost of handling lignite coal as shown by Exhibit No. 47 so corrected would be greater than the receipt therefor under the statutory rate, would it not? A. Providing the figure you named is the proper figure, yes, sir.

Q. Well, Mr. Little, referring again to Exhibit No. 47 in the last column of Exhibit No. 47 you have

figures designed to show the cost on the basis of higher cost for local trains? A. Yes, sir.

Q. Which applies to lignite. Now, if your figure of 3.27 cents, as shown in the third column as the cost of movement is to be increased to 4.04606 cents as figured by you this afternoon, then the figure of 4.33 cents as shown in the last column would be correspondingly increased.

A. If it is proper to make one change it is proper to make the other, yes, sir.

Mr. Armstrong: That is all.

By Mr. Donnelly: (On behalf of the N. P.)

Q. In regard to those exhibits that you introduced making comparisons between the rates on the Northern Pacific for the movement of saw-logs, etc., with the statutory rate in question, you recognize, of course, that the fact that there is to be a product moved out, produced from the saw-logs, is a consideration for the making of a low rate for the movement in question? A. I understand that, yes, sir.

Q. And that is a fact that you have in the case of the saw-logs that is not true of the lignite business? A. There could not be a product out, no, sir.

Mr. Armstrong: That is all.

Mr. Young: I offer in evidence Plaintiff's Exhibit No. 54.

Mr. Little was then excused from further examination in the case, subject, however, to being recalled at the option of the plaintiff, for rebuttal.

Hearing was resumed at 10:00 A. M., Monday, May 27,1912, in the general offices of the Northern Pacific Railway Company, pursuant to adjournment taken, and the following proceedings were had:

Present the plaintiff and its attorneys. Present, also, the attorneys for the defendant railway companies.

Mr. C. W. Hillman, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified on behalf of the plaintiff, the state of North Dakota, as follows:

DIRECT EXAMINATION.

By Mr. Miller:

Q. Mr. Hillman, what experience have you had in connection with railroading, to qualify you to testify as a witness in connection with railroad rates and railroad rate making, and the division of rates between passenger and freight rates, and applying rates to a particular commodity? A. I graduated from La Fayette, Pennsylvania School of Civil Engineering in 1874, and went into the service of the Cumberland Valley Road, a branch of the Pennsylvania Road in 1876. In the meantime I had done some engineering work for this road and for the Quincy, Alton & St. Louis road, which is now a part of the Burlington system. During this time, there being no engineering work owing to the dullness of the times, I prepared myself by learning telegraphing and other odds and ends around a railroad office, for general railroad work. From 1876 to 1880 I was in the employ of the Cumberland Valley Road as telegraph operator and ticket agent, agent, freight agent, scales clerk, which included at that time the business of yard clerk, superintendent's clerk, assistant car accountant, and finally dispatcher of the road. In 1880 I left the Cumberland Valley Road and entered the service of the Northern Pacific Railway Company, in the treasurer's office in the City

of New York. I was with them for about fifteen years in various capacities, and after seven years, perhaps, was appointed assistant tr[illegible]rer of the Northern Pacific. When the Northern Pacific entered Chicago, I was transferred from New York to Chicago, still with the title of assistant treasurer of the Northern Pacific Railway Company, and with the additional duties of treasurer for some and assistant treasurer for others of the numerous branches they had absorbed. The Northern Pacific Express Company, afterwards the Northern Express Company, was then transferred from St. Paul and put under my charge. In his duties, the treasurer of the Northern Pacific Railway Company was at that time practically the comptroller, and the work of the treasurer was performed by the assistant treasurers, Mr. Clark, at St. Paul, I being at Chicago, and William G. Ward at New York. In 1895 the Northern Pacific lost its terminals by the reorganization, and I entered the service of the Metropolitan West Side Elevator Railroad Company as their auditor. The road was new and had no accounts of any kind at the time. It had simply the secretary's record of proceedings up to that time. I introduced their system of accounting, basing the division of accounts upon the Interstate Commerce Ruling for similar roads, which was the first, as far as my knowledge goes, electrical road put upon that basis. I reorganized their shops and put them on the cost basis, and all that business while I was there. In 1903 I left the employ of the Metropolitan West Side Elevated Road, and, for a year was with the Chicago, Rock Island and Pacific Road, in the office of the assistant comptroller. I then left that road and tried to establish myself as a public accountant, with rather indifferent success. In 1905

I entered the employ of the Baker-Vawter Company, of Chicago, as one of their consulting accountants they having a large business in the accounting line as well as in the manufacturing line. I served them about a year and a half, and then entered the employ of the Indiana Audit Company as the head of their cost department. I then established on my own account, the present company, of which I am president, the Mutual Audit Company, of Louisville, Kentucky. Almost at the time that I established this company, I received from the State of Kentucky, a contract to do some work to aid them in their contest with the railroad companies on the rate question, both passenger and freight. I have been employed almost continuously in rate matters and railroad investigation since, for the states of Minnesota, South Dakota, North Carolina, Alabama, Florida, West Virginia, Oklahoma, Indiana, Illinois, and Arkansas. I, of course, have been consulted on a number of other cases, but was not actively employed in them. Several of these states have employed me perhaps two or three times. The state of Florida has employed me just now for the 4th time since that date.

Q. Since you were employed to assist in determining the rate in question in these cases, have you made some investigation and calculations as to the cost of carrying lignite coal in North Dakota? A. Yes, sir, I have.

Q. Calling your attention, Mr. Hillman, to Northern Pacific Exhibit No. 24, I will ask you if you have examined this exhibit and gone over it, recalculating the figures thereon for the purpose of correcting any errors there may be therein, and making such corrections as in your judgment ought to be made? A. Yes, sir, I have. Making such corrections as I deemed were prop-

er, and were called for by the data in hand, both as regards the data and the application of those data.

Q. Now, have you prepared an exhibit showing the amount of expenses chargeable to freight and the proportion of the freight expenses chargeable to lignite coal in North Dakota, treating the state as a unit? A. Yes, sir, I have.

Q. And have you prepared an exhibit making a division between freight and passenger, and freight and lignite coal, similar to the exhibit you have made in the previous question, making your computation for main line and branches separately, and then consolidated the main line and branch lines? A. Yes, sir, I have.

Q. Now, will you please give the result of those two exhibits details to follow later in your testimony, and also at the same time give your computation of similar expenses chargeable to freight as given by Mr. Little, and Mr. Johnson, for the Northern Pacific, in their testimony? A. The amount chargeable to freight, as shown by the Northern Pacific testimony in this case for the state of North Dakota is $3,155,-636.39. The amount shown by Mr. Little as chargeable to freight, on his exhibits filed in this case are $3,368,921.46. The amount shown by me as chargeable to freight, treating the state as a unit is $3,344,-678.60. The amount chargeable to freight by me when the main line and branch lines are calculated separately and the results added is $3,341,963.61. The amount of expenses chargeable by me to lignite coal upon the basis of the state as a unit is $54,716.50. Taking the branch lines and main lines separately, on the lignite business, and adding the two results, the amount is $54,565.09, as will appear upon the subsequent exhibits

in this case. The amount of expenses chargeable to the lignite freight is shown by Mr. Johnson, on Northern Pacific Exhibit No. 24, as $58,782.57. I did not follow Mr. Little's figures through to see what total amount he would make chargeable to lignite coal expenses, as he had shown his upon a mileage basis, comparing the different rates and the cost at different distances, and I did not consolidate it and follow it into the total.

Q. Mr. Hillman, calling your attention to Exhibit C. W. H. No. 1, (Paper produced and marked Plaintiff's Exhibit C. W. H. No. 1 by the reporter.) I ask you if that is an exhibit prepared by you, and does it show the corrections made by you of Northern Pacific Exhibit No. 24? A. Yes, sir. It shows those corrections made by me.

Q. Will you explain in detail the nature of the exhibit and its contents, and the reasons therefor? A. The exhibit, which is Northern Pacific Railway Company cost of transportation on lignite coal in North Dakota for the year ending June 30, 1911, using the data furnished by Northern Pacific Exhibit No. 24, and correcting this use and data as per testimony, follows in its form Northern Pacific Exhibit No. 24. The first item that is shown is transportation expenses. While Mr. Johnson's Exhibit No. 17 gives us the percentage for fifteen months, I considered the application of these figures for fifteen months, or, to be more exact, fourteen and two-thirds months, as incorrect, as he should apply the twelve months data to the actual twelve months expenses. That is, the data for the fiscal year should have been applied to the expenses for the fiscal year. I have therefore cut out the first three items of Northern Pacific Exhibit No. 17, which gives me the

following totals: Number of cars, second column, 4410: Main line and local trains loaded car miles, 178,166. The next column, the same in through trains, 129,648; in branch line trains, 38387. Total 346,201. Empty car miles, main line, total of column, 216,487, branch lines, 30774. Total, 247,261. This would correct the figures which are shown at the bottom of Northern Pacific Exhibit No. 17. Loaded car miles in local trains, percentage, 51.46: In through trains, 37.45: In branch line trains, 11.09. Empty car miles per cent of loads, 71.42. Shifting, now, to Northern Pacific Exhibit No. 22, third paragraph, first page. It gives us, equated ton miles, 919,213,121, Mr. Johnson's expenses into which he divided his equated car mileage, to produce 1.5811 mills per equated ton miles on Exhibit No. 24, was $1,463,908.88. If you divide this by the number of ton miles, or what I consider the number of ton miles as above, it gives us the figure of 1.5926 mills per ton mile, which figure is used by me upon my Exhibit C. W. H. No. 1. The lignite coal ton miles were, according to Mr. Johnson's Exhibit No. 24, 9,380,678, which, when equated upon what I deem the proper basis of the equation, which is 2.049, and the production of which I will show in a moment, gives us 19,221,009 equated ton miles, which, multiplied by the 1.5926 mills which we have just shown, gives us a cost for train, transportation expenses, of $30,611.38. We find, in producing the factor 2.049, Northern Pacific Exhibit No. 20 shows the total ton miles on through trains obtained by multiplying the mileage by the average weight of the train as shown upon this exhibit, of 269,656,344 ton miles. That is produced by multiplying 182,694 train miles by 1,476 tons. In the same way, we find that the total weight on way freight was

26,030,790; on branch lines, 29,144,772, showing the percentages as follows: Total for main line through trains, 83.01: for way freight main line, 8.01 per cent: branch lines, 8.98 per cent. Mr. Johnson's Exhibit Northern Pacific No. 22, first sheet, third paragraph shows the actual revenue ton miles carried in each of these classes of trains. Percenting these, it shows that for the year his figures on the main line through trains were 82.57 per cent; on way trains, main line, 8.05 per cent; branch lines, 9.38 per cent. In other words, after deriving his relative cost on the lower ton miles of way and branch line trains, shown in Exhibit No. 20, Mr. Johnson then applies this higher cost which is shown by the lower train mileage carried upon these classes of trains, or these way trains, to the higher percentage of tonnage which he found carried on the way trains for the year, which I consider an error, and which, in correcting, according to the amount shown by the yearly business, would correct his figures shown upon his Exhibit No. 20, cost per one hundred ton miles, main line through freights, 5.21; main line way freights, 13.76; branch line freight trains, 14.84, which would then give us the relative percentage of 100 for main line through freights, 264 for main line way freights, and 285 for branch line freights. Applying these figures to the car miles shown on Exhibit No. 17 would give us a total percentage, when we reduce all of these items to the—you might say, to the equated car mile basis of 2.049, proceeding upon the same basis that Mr. Johnson has in his Exhibit No. 22, second paragraph, first page. This is the production of the factor of 2.049, Mr. Johnson's factor being 2.10. Mr. Johnson's Exhibit No. 24 shows 19,884 car movements at twenty-five cents each. While I do not agree with

Mr. Johnson on this point, and will take that up later in my own exhibits, I have allowed that expense to stand as stated by Mr. Johnson, deeming that that was not an error in Mr. Johnson's figures and which could have the correction indicated in the present exhibit. I will take it up later.

The next matter is station service. Mr. Johnson uses 4412 cars, multiplied by two, at a rate of 47.4 cents per car. On this matter of station service, Mr. Johnson set up a basis of twenty to one as being the relation between the work necessary to handle carload freight as against less than carload freight. In making this computation, I have deemed that I am justified in omitting entirely from any such computation, the freight handlers. They do not touch this business, and the method outlined by Mr. Johnson, to my mind, would indicate that the clerical effort, or the balance of the service outside of those freight handlers, could be equitably divided upon the basis which he has mentioned, of twenty to one, which I would say, agrees in its general results with those which have been previously filed by Mr. Johnson's comptroller, Mr. Gray, in another case, where he says that the relation is a ton to a carload, and therefore the relation of twenty to one, since the average carload may be considered to consist of twenty tons. This relation seems to hold with both the comptroller and the assistant comptroller of the Northern Pacific Road. Now, I find that in the division of the expenses to which Mr. Johnson applied this amount, that the total expenses so used was $184,472.24, which were the figures used to produce his 47.4 per car shown on Exhibit No. 22. Now, I was going to call attention to the fact there that that figure is not correct; that the figure there has been a mistake in the

division, the man taking 285580 for his divisor instead of 255,580, it being a little indistinct in the copy, and therefore that figure should be 51.04 instead of 47.4. However, leaving that out of the question, as we now come to a different handling of this matter, I find that the freight handlers were $52,745.00. I obtained this figure from Mr. Johnson. I very carefully mislaid it, and that figure may be a few dollars out of the way. I mean by that, varying somewhere above forty-five or below forty-five dollars.

By Mr. Dille:

Q. You say you carefully mislaid it— A. I mean that I simply lost it. I put it away carefully and could not find it again, but I had retained the amount in my memory, and that agrees with what Mr. Johnson used the other day within a few dollars, which would not affect the result appreciably. It seems that would leave $131,727.24 to be divided upon the twenty to one basis. The car movement shown on Sheet No. 2, of Exhibit No. 22, was 358,975, which, divided into the amount I have just mentioned, gives us 36.695 cents per car. Applying these figures to the 8,824 cars, gives us the figure 3,237.96 dollars, as shown upon C. W. H. Exhibit No. 1 the cars being doubled for the station service—station service in and station service out. Repairs to freight cars are figured by Mr. Johnson upon Exhibit No. 22, Sheet 3, and he takes the ground that the free time should be figured in as the basis of the division of his freight car expenses. This is time when the cars are not subject to switching and not subject to car repairs, and I have therefore taken out the consideration of this extra time from Mr. Johnson's car repairs and renewals. It is also evident that as far as the deprecia-

tion of the cars goes, this extra time can be considered, and as far as the depreciation goes, I have allowed Mr. Johnson's figures to stand, including this time when the cars are held up and not subject to switching. By reference to Northern Pacific figures, which will be shown upon subsequent exhibits so that they can very readily be verified if necessary, it will be found that the car repairs and renewals amount to $327,-567,14, the car depreciation, $154,364.94, or, the depreciation was 32.03 per cent of the total. I can therefore allow Mr. Johnson's figures, consistently, only on the 32.03 per cent, and therefore allow the extra on only 32.03 per cent of the 21.8 per cent, which Mr. Johnson shows upon his Exhibit No. 22, to be added to the computation in order to determine this matter of the extra car repairs, or only 6.9825 per cent instead of 21.8 per cent. Adding this percentage to the sum of $7,121.54 shown by Mr. Johnson's Exhibit No. 21, we have $7,618.80 shown on Exhibit No. C. W. H. 1.

On the maintenance of way and structure accounts, that is, the percentage charged I have allowed Mr. Johnson's figures, $7,119.93 to remain untouched. Now, Mr. Johnson, on his Exhibit No. 24, uses 4.56 per cent of the revenue as the proper amount to be charged to lignite coal on account of the loss and damage, general expenses and traffic expenses. Of this amount, which is shown on N. P. Exhibit No. 23, $133,386.33 was incurred on account of loss and damage to freight. There are not, as far as I can learn, any damages that have been paid upon the lignite coal traffic. I therefore deducted this from the sum Mr. Johnson used in his computation of this matter, and I find that it leaves $157,082.03 to be divided by the

freight revenue of $6,368,278.00, or 2.47 per cent, which amount, applied to the earnings, $58,953.07 on lignite coal, gives $1,456.14 as the amount of traffic expenses, general expenses chargeable to lignite coal. This gives us a total operating expense of $55,015.21 as shown on Exhibit C. W. H. No. 1, and, adding to that the taxes as shown on Mr. Johnson's Exhibit N. P. No. 24, gives us a total of $57,439.36 against earnings shown by Mr. Johnson, also upon his exhibit No. 24, of $58,953.07, or a profit above operating expenses and taxes of $1,493.71.

By Mr. Young:

Q. You have now explained, have you, Mr. Hillman, the source of each of the factors used by you in making the corrections of Mr. Johnson's Exhibit No. 24, as shown by Plaintiff's Exhibit C. W. H. No. 1? A. Yes, sir, and of course it is understood all through that this exhibit is not as an indication of my idea of the correct division, but as showing what I deem are legitimate corrections upon Mr. Johnson's data and methods.

Q. You have nothing further regarding any of the factors used by you in Exhibit C. W. H. No. 1, or anything to say in regard to any of the results arrived at by you in the use of these factors? A. No, sir.

Q. Now, in the beginning of your testimony you stated, Mr. Hillman, I believe, that you made a division of the operating expenses of the Northern Pacific Railway Company for the state of North Dakota between freight and passenger, using the state as a unit. Is that correct? A. Yes, sir.

(Paper produced and marked Plaintiff's Exhibit C. W. H. No. 2, for identification, by the reporter.)

Q. You have prepared this division in the form of an exhibit, have you? A. Yes, sir, I have.

Q. You may examine Plaintiff's Exhibit C. W. H. No. 2 and state if that is the exhibit, using the division mentioned by you? A. It is, yes. (Witness examines paper.)

Q. In making this division you have made the division for each of the general accounts separately, have you—each of the primary accounts separately? A. Yes, sir.

Q. And then grouped the results of the division of the primary accounts under the general accounts? A. Yes, sir, and also under a grand total.

Q. The first account divided appears by the exhibit to be maintenance of way and structures, and under that account the primary accounts, superintendence, maintenance of way and structures, and so on through twenty-three primary accounts. You may explain your method of dividing the primary account superintendence, maintenance of way and structures. A. This has been divided upon the basis—divided between freight and passenger on the percentage shown by the amounts of accounts No. 2 to 16 inclusive, which shows 66.2278 per cent chargeable to freight.

Q. You may state your reason for this division. A. That is the accounts Nos. 2 to 16 are the accounts over which the superintendent exercises supervision, and therefore the proper division of his energies is upon the basis of the accounts which he oversees, which are accounts No. 2 to 16, inclusive.

Q. You may explain how you have made your division for primary account No. 2, referring to the division between freight and passenger. A. Account No. 2 is Ballast, which has been divided upon the basis

of ten per cent wear, and ninety per cent due to weather. The ten per cent wear has been divided on the basis of the relative weights of freight and passenger trains going over the track, which shows a percentage to freight of 64.9591 per cent. The weather proportion, or the ninety per cent, has been divided on the basis of the gross earnings of freight and passenger, which gives us 67.7156 per cent as the freight percentage, which gives us the result shown upon Exhibit No. 2. Probably I should indicate right here the method in which I have proceeded to obtain the relative weights of the freight and passenger traffic.

Q. Yes. A. We have taken the locomotive mileage for two months, November, 1910, and April, 1911, and the individual locomotives passing over the road at that time, and their weights taken from information furnished by the Northern Pacific Railway Company. From this we have derived the average weight of our passenger locomotives and the average weight of the freight locomotives. We have applied this weight derived from these two months' figures to the total year's business. We found that the average weight of the passenger locomotive is 151.34 tons, including the loaded tender; the freight locomotive, 178.18 tons. On the mixed trains the weight of the locomotives was 102.99 tons for, of course, both freight and passenger. On the specials we have taken the same weight of locomotives as we took upon the regular trains, that is, 151.34 tons for passenger and 178.18 tons for freight. On switching, the weight of the switching locomotives used in the passenger service average 77.45 tons; those used in the freight service, 101.43 tons. We have then applied each of these engine weights to the mileage shown by the

records of the Northern Pacific Railway Company, the result being, in freight, that the locomotives on what we might call the regular trains weighed 289,618,939 ton miles; on the mixed trains, 11,950,136 ton miles. In this case we have used the same proportion that the Northern Pacific did in its freight and passenger business, of seventy-five per cent freight and twenty-five per cent passenger for mixed trains. That states the general proposition. I have no objection to this, as in the previous case of the Northern Pacific I ran this business up in another state, and found that that held pretty well, the percentage being slightly under that when we took it on the basis of car miles, so I have no objection to that division between freight and passenger for mixed trains. The special trains, we find that dividing those upon what we call the special car mile basis gives twenty-five per cent passenger and seventy-five per cent freight. They are calculated on that basis. On the switching locomotives we applied that to the switching locomotive miles, and obtained a weight of 26,891,324 ton miles. We had 41,858,740 loaded car miles which we calculated at sixteen tons a car, which gives 669,739,840 ton miles for loaded cars, that is, for the car itself. The empty cars amounted to 123,516,544 ton miles. The cabooses, taken at sixteen tons each, amounting to 24,314,528 ton miles. The special cars —I mean by that the cars on special trains—loaded, were 28,503 car miles, multiplied by sixteen, 456,048 ton miles. The cabooses of the specials, 1971 car miles, multiplied by sixteen, gives us 31,536 ton miles for the weight of the cabooses on special trains. We then took our switching weight, and calculated our switching weight upon the basis of three loaded cars

and two empty cars to each switch movement. A total of five cars per switch movement, three of them loaded and two empty. Upon that basis, and calculating these cars upon the basis of sixteen tons each, we have a further weight to be added to freight of 24,540,094 ton miles. This gives us a total of what we might call dead weight, including switching, of 1,181,058,989 ton miles for our freight. We find that of the total ton miles moved, that the company material took up 12.98 per cent, that is, taking the total ton miles of live freight and total ton miles of company material, we find that the relation exists of 12.98 per cent. Deducting 12.98 per cent from these totals which we have already given on this basis, of car miles and engine miles immediately preceding this, we have, including all the car miles and engines miles that carry company freight, 153,301,457 ton miles, which would leave us as the live freight dead weight, 1,027,757,532 ton miles. To this we add the live ton miles, all freight, exclusive of company material, of 701,732,022, making a total freight weight of 1,729,489,554 ton miles. In the same way we have taken our passenger weights. We have taken our coach miles at 54.6 tons. That is the average weight of these cars furnished us by the Northern Pacific Railway Company, and we have taken the figures as handed us by them as the proper weights. I find that I was mistaken in that statement. They gave us the actual weights by cars upon each run that they had, giving us the cars run on the passenger trains, each train, and its weight, and we then applied the mileage of the runs and deduced the average weight of each class of cars from those figures, which are taken from the train-consist, and there could be no

other figures, unless we have made an arithmetical error. The average coach weight was 24.56 tons. The average sleeping and observation car, sixty-three tons, and the other passenger cars 51 tons. We have applied each of these average weights to the mileage made by each class of car, and obtained a total passenger weight for coaches, sleeping cars and other passenger cars, including special trains in this computation, of 622,777,291 ton miles. To this we have added our passengers one mile, at .075 of a ton, or one hundred and fifty pounds per passenger, which gives us a further weight of 8,738,140. In these weights of the cars furnished us was included an estimate of the Northern Pacific of the load on the cars, that is, the baggage and express, and those things. Now, there were 54,229 miles of passenger switching. We have already taken in the computation these mileages with the weight of the yard switching engines, which was used for passenger, or 77.45 tons. We have calculated that the average passenger train weight, exclusive of load, was 333.7 tons. We multiplied the 54,229 switching miles by this weight of trains, which gives us a further weight of 18,096,217 ton miles. Adding the weights of our engines at the figures mentioned, at the average figures for their weights which I have mentioned, to the engine mileage, and the average coach and other car weights to their respective mileage, gives us a total of passenger, 932,-939,774. This is 35.0409 per cent of the total weight of the freight and passenger, and leaves, for the freight percentage, 64.9591 per cent, which is the factor that I have used when we used the weight basis as the division of any particular expense.

The earnings which we have taken to determine

the relative freight and passenger gross earnings are as follows: Regular freight revenue, $6,368,277.67; switching revenue, $13,702.16; special train revenue, $4,124.81; miscellaneous freight revenue, $13,981.74; storage, $1,158.40; car service, $10,123.00, making a total of freight earnings of $6,411,367.78. The passenger revenue was $3,051,222.45; the receipts of special passenger trains, $2,515.85; miscellaneous sources, $301.93; baggage, storage, etc., $2,526.72; miscellaneous passenger earnings, $147.89, making a total of passenger receipts of $3,056,714.84, and of the total obtained by adding the freight and passenger together, the freight earnings was a percentage of these earnings of 67.7156 per cent, which is the derivation of the percentage I have used in the division of such items as I have divided upon the gross earnings basis.

Q. You may explain how you have divided primary account No. 3 between freight and passenger. A. Primary Account No. 3, which is Ties, has been divided on the basis that 17½ per cent of the ties was due to the wear factor, and therefore divisible upon the weight basis between freight and passenger, and the other 82½ per cent was due to the weather and therefore divisible upon the earnings basis. The application of these figures gives us the result shown opposite this account upon Exhibit C. W. H. No. 2.

Q. You may explain the division between freight and passenger of the Fourth Primary Account. A. The fourth primary account, rails, has been divided upon the basis of ninety per cent wear, therefore divisible upon the weight basis, and ten per cent (10%) due to the weather stresses, and therefore divisible upon the gross earnings basis on the percentage that I have just quoted for each of these separate items. The

application of these percentages gives us the totals shown opposite this account upon Exhibit C. W. H. No. 2.

Q. The factors which you use in each of these primary accounts are applied to the freight and passenger? A. Freight and passenger only, and refer only, of course, to the second column of Exhibit No. 2. The third column will be taken up a little later.

Q. You may explain the division in Primary Account No. 5? A. Primary Account No. 5 is Other Track Material. This has been divided upon the same basis as rails, ninety per cent wear and ten per cent weather.

Q. Primary Account No. 6. A. Account No. 6, Roadway and Track. The percentage of wear chargeable to roadway and track has been determined as 24.521 per cent, and is obtained by the totals as expressed between wear and weather of Accounts Nos. 1, 2, 3, 4 and 11, as the roadway and track is properly taken up in the work which is introduced under these accounts which I have just mentioned; therefore, 24.521 per cent has been considered as the amount of the roadway and track which is due to the wear, and has been divided upon the weight basis, and the balance has been considered as due to weather, and has been divided upon the gross earnings basis, with the result shown opposite this account upon Exhibit C. W. H. No. 2.

Q. You may explain Primary Account No. 7. A. Account No. 7, which is removal of Snow, Sand and Ice, has been taken upon the basis of the train miles, including switching, as we consider that the removal of snow, sand and ice is for the accommodation of the trains as they move over the track, regardless of their size, and that switching must be included. This

gives a percentage of 50.62 per cent to freight, and the application of this percentage produces the figures shown by Exhibit C. W. H. No. 2, opposite this account.

Q. You may now explain as to Primary Account No. 8. A. There being no charges opposite that account, no division has been made.

Q. You may explain the Division of Primary Account No. 9. A. Account No. 9 is Bridges, Trestles and Culverts. Fifteen per cent of this account has been considered as due to wear, and divided upon the weight basis as between freight and passenger. The other eighty-five per cent has been considered as a weather item, and been divided upon the gross earnings basis, giving us the result shown opposite this account upon Exhibit C. W. H. No. 2.

Recess was here taken until 2:00 o'clock P. M.

The hearing was resumed at 2:00 P. M., Monday, May 27th, pursuant to recess taken, and, all parties being present, the following proceedings were had.

DIRECT EXAMINATION

of Mr. Hillman continued.

By Mr. Young:

Q. You may explain Primary Account No. 10, Mr. Hillman. A. No. 10, Over and Under Grade Crossings, has been divided upon the basis of the train miles, including switching, since the over and under grade crossings are subsidiary to the switch yard limits as well as to the road. I will say that I have not given the production of the factor of train miles, including switching, but it will be the revenue train miles, freight, and revenue ton miles, passenger, plus,

in each case, the switching percentage shown as due to freight and passenger. The switching miles added to the revenue train miles, freight and passenger, gives the figures upon which we based the percentage of train miles, including switching, which, as I said, is 50.62 per cent freight.

Q. You may explain the division of the next Primary Account, No. 11. A. Primary Account No. 11, Grade Crossings, Fences, Cattle Guards and Signs, has been divided on the basis of twenty-five per cent of this expense due to the wear and divided upon the train weight basis between freight and passenger, and seventy-five per cent due to weather, and divided upon the basis of gross earnings, giving us the figures which are shown opposite this account in Exhibit C. W. H. No. 2.

Q. You may explain Primary Account No. 12. A. This account, which is Snow and Sand Fences and Snow Sheds, has been divided upon the basis of the revenue train miles exclusive of switching, or 47.5233 per cent to freight, giving us the figures shown opposite this account on Exhibit C. W. H. No. 2.

Q. Primary Account No. 13. A. Account No. 13, Signal and Interlocking Plants. This has been divided between freight and passenger upon the basis of train miles, including switching, or 50.62 per cent to freight, giving us the figures shown opposite this account on Exhibit C. W. H. No. 2.

Q. Explain Primary Account No. 14. A. Primary Account No. 14, Telegraph and Telephone Lines. This has been divided between freight and passenger on the basis of one-half on the car miles, and one-half on the train miles, the idea being that one-half of these expenses are due to the static por-

tion of the business, that is, before it moves, and represented by the car miles, and the other on the basis that it is the movement expenses, and based upon the train miles. This percentage is 64.8013 per cent freight, and gives us the result shown opposite this account on Exhibit C. W. H. No. 2.

Q. You may now explain the division of Account No. 16. A. Account No. 16 is Buildings, Fixtures and Ground. Of this account $12,002.35 is directly allocated to freight and $3,803.76 to passenger, leaving a balance or common item of $76,613.01. This balance has been divided between freight and passenger on the basis of the gross earnings, or 67.7156 per cent. I would say here that I wish very much that the basis of this allocation had been heavier, so that we could use the allocated expenses as the division of the remaining common expenses, but it did not seem to be a broad enough basis to do so, so I divided the common upon the basis of the gross earnings between the two businesses.

Q. I take it that the Northern Pacific charge nothing for docks and wharves? A. No.

Q. You may explain the division in Account No. 18. A. Account No. 18, which is Roadway Tools and Supplies, has been divided upon the same basis as Account No. 1; that is, Accounts No. 2 to 16 inclusive, which shows a freight percentage of 62.2278 per cent assignable to freight; and the application of that percentage gives us the figures shown opposite this account in C. W. H. Exhibit No. 18.

Q. Account No. 19? A. Primary Account No. 19, which is Injuries to Persons, has been divided upon the same basis as the preceding account that

is, the same as Accounts Nos. 2 to 16, inclusive. The same percentages.

Q. Explain Account No. 20. A. Account No. 20, which is Stationery and Printing, has also been divided upon the same basis as the preceding accounts; that is, all of the Accounts Nos. 2 to 16, inclusive.

Q. Explain the division of Account No. 21. A. Account No. 21, Other Expenses. No charge in the books on this account, and therefore no division.

Q. Account No. 22? A. Account No. 22 is Maintenance of Joint Tracks, Yards and Other Facilities, Dr. This has been divided between freight and passenger upon the car mile basis, which assigns 82.0792 per cent to freight, or the amount which I have shown in Exhibit No. 2. I would state that as a general proposition debits to this account come in to the Northern Pacific upon the basis of the wheelage from the different facilities maintained under it, and therefore I have taken it upon the wheelage basis or car mile basis, for the division between freight and passenger.

Q. You may now explain the division of Account No. 23. A. Account No. 23 is the Maintenance of Joint Tracks, Yards and Facilities, Cr. This is a credit account, and the totals shown on Exhibit No. 2 must be deducted and not added, from the totals in order to obtain the proper result. They are marked with a star, which indicates that they should be deducted and not added. This has been divided on the basis of Accounts Nos. 2 to 16, inclusive, the basis being settled upon the fact that this is an expense which is so charged to other roads, having been culled from Accounts Nos. 2 to 16, inclusive, and therefore are credited upon the same basis. This, of course, could have been gone into in more detail, and

shown the amounts which came from each one of these accounts, but this would have been a matter of a great deal of detail, and was not gone into at the time. This completes the division between freight and passenger of the first general account, Maintenance of Way and Structures, and shows, out of a total of $1,027,-316.10, that $680,082.68 was a freight charge.

Q. I notice, Mr. Hillman, in connection with your explanation of the division of certain of these primary accounts, you assigned a certain percentage to wear, or on the basis of wear, and another certain percentage on the basis of weather. Do you wish to make any explanation of this division? A. Yes, sir. Generally, the explanation is that it is a fact that not all of this maintenance of way and structures expenses are chargeable to the traffic which passes over them. As it has been stated in the Minnesota case by one of the Railroad Presidents, Mr. Hill, the rails will rust, ties rot, and the track will wash out whether a pound of freight moves over them or not. It is a generally conceded proposition that such is the case; that a large part of the maintenance of way and structures expense is not dependent on the traffic moving over them. But the percentages which I have used represent the best of my knowledge and investigation, which should be charged to wear and which should be charged to weather. The wear proportion has been taken upon the basis of the weights moving over the track. The other upon the gross earnings.

Q. Taking up the primary accounts constituting the second General Account, Maintenance of Equipment, you may explain the division of Primary Account No. 24, between freight and passenger. A. Primary Account No. 24 has been divided between freight and

passenger upon the basis of Accounts Nos. 25 to 45, inclusive, which gives 69.6294 per cent, chargeable to freight, the reason for it being the same as I have mentioned in the explanation of the account, Maintenance of Way and Structures, that the Superintendent's time under maintenance of equipment is employed in supervising the accounts which follow, and shown by Primary Accounts Nos. 25 to 45, inclusive.

Q. You may explain the division of Primary Account No. 25. A. Repairs to Steam Locomotives. The Northern Pacific Road have allocated $215,391.80 to freight, and $130,325.54 to passenger, leaving as a common item $1,501.22, which common amount has been divided on the basis of the allocations which assign 62.3029 per cent to freight. In this account of steam locomotive repairs, these locomotives were engaged in hauling company material. Company material consists of both freight and passenger material. We have made the computation of the amount of the freight train expenses which were due to hauling company material, and have determined that 4.4 per cent of the total expenses were due to the passenger proportion of company material carried on freight trains. We have therefore deducted from the amount of the freight expenses, 4.4 per cent, as shown up to this point, or $9,518.39, which, when deducted from the original amount of $216,327.10, gives us $206,808.71, as shown upon Exhibit C. W. H. No. 2.

Q. The credit item you have just mentioned is the one you have given here as Primary Account No. 26? A. No, sir, that is a different item.

Q. You may now explain Account No. 26. A. Renewals of Locomotives. This is a credit account on

the books of the company, and has been divided on the same basis as Account No. 25, and assigns the amount shown opposite this account upon Exhibit C. W. H. No. 2.

Q. Account No. 27. A. Account No. 27 is Steam Locomotive Depreciation, and is divided on the same basis as Account No. 25, including, in both this account and Account No. 25, the deduction for the amount of the passenger proportion of company material carried on freight trains, and gives us the figures found opposite this account on Exhibit C. W. H. No. 2.

Q. You may explain Accounts Nos. 31, 32 and 33, together, if you can, Mr. Hillman. A. These are the passenger train car repairs, renewals and depreciation, and are passenger items and have been directly charged to passenger, there being no charge to freight for them.

Q. And Accounts Nos. 34, 35 and 36? A. Accounts Nos. 34, 35 and 36, being freight train car repairs, Renewals and Depreciation, are freight items, with the exception of a credit which should be made to these accounts for the company material carried on freight trains, of 4.4 per cent. Therefore, deducting that percentage, which is the passenger proportion of the company material carried on freight trains, gives us the figures which are shown opposite these accounts upon Exhibit C. W. H. No. 2.

Q. Will you explain Accounts Nos. 43, 44 and 45 together? A. Yes, sir, these accounts, being the Repairs, etc., on the work equipment, are divided upon the basis which is shown in Maintenance of Way and Structures Accounts Nos. 2 to 14, inclusive, the principal use of this work equipment being in the

maintenance of way accounts, Nos. 2-14. This percentage is 65.9094 per cent, and since, in these maintenance of way and structure accounts, we had already, before deriving our figures upon which they were divided, we might say made an allowance for the amount of company freight, it was not necessary to make a further allowance of the 4.4 per cent, therefore it stands upon the basis of Accounts Nos. 2 to 14, inclusive.

Q. Will you explain the division of the next item? A. I can explain Accounts Nos. 46, 48, 49 and 50 together, as they are upon the same basis. These are, respectively, Shop Machinery, Tools, Injuries to Persons, Stationery and Printing, and Other Expenses. These have all been divided upon the same basis as Account No. 24, which is the relation shown by Accounts 25 to 45, inclusive, in this block of accounts, or 69.6294 per cent, giving us the amount shown opposite these accounts on Exhibit No. 2. This completes the division of the second general account, Maintenance of Way and Equipment, and out of $1,167,392.83, assigns $812,952.17 to freight. My attention is called to the fact that in Account No. 48, before we applied this division, $341.09 was directly allocated by the Northern Pacific Railroad Company to the freight account; that is, Injuries to Persons. Then, the balance of Account No. 48 was divided upon this shown percentage.

Q. Now, taking up the third general account, Traffic Expenses, you may explain your division between freight and passenger of the first primary account, No. 53. A. Primary Account No. 53, Superintendence, has been, to a large extent, allocated by the Northern Pacific Road, charging $16,344.02 to freight,

and $8,039.56 to passenger, leaving as a common item, $6,088.31, which common item has been divided between freight and passenger upon the basis of the allocation, or 67.0288 per cent, which gives us the figures shown opposite this account on Plaintiff's Exhibit C. W. H. No. 2.

Q. You may explain Account No. 54. A. Account No. 54, Outside Agencies. The Northern Pacific have allocated $29,283.31 of this account to freight, and $26,755.45 to passenger, leaving as a common item, $19,774.61, which common item has been divided on the basis of the allocations, which assign 52.2555 per cent to freight, giving us the amount shown opposite this account on Exhibit C. W. H. No. 2.

Q. Explain the division of Primary Account No. 55. A. Account No. 55, Advertising. This has been entirely allocated by the Northern Pacific Road. Only $2.91 of this account has been charged to freight. All the balance has been charged to passenger.

Q. No. 56. A. No. 56, Traffic Associations. The Northern Pacific have allocated $1,461.79 to freight and $85.19 to passenger, leaving as a common item, $45.26, which has been divided upon the basis of the allocation, or 94.4931 per cent to freight, giving us the figures found opposite this account upon Exhibit C. W. H. No. 2.

Q. Explain Account No. 58. A. Account No. 58, Industrial and Immigration Bureaus. The Northern Pacific have allocated $199.73 of this account to passenger, and nothing to freight. The balance of the account, $10,775.60, has been divided between freight and passenger upon the gross earnings basis, assigning 67.7156 per cent to freight, giving the figures

shown opposite this account on Exhibit C. W. H. No. 2.

Q. Primary Account No. 59. A. Account No. 59, Stationery and Printing. The Northern Pacific have allocated $7,044.68 to freight, $4,416.99 to passenger, leaving as a common item, $1,058.09, which has been divided between freight and passenger on the basis of the allocations, or 61.4629 per cent to freight, giving us the amount shown opposite this account on Plaintiff's Exhibit C. W. H. No. 2.

Q. Account No. 60. A. Primary Account No. 60, Other Expenses, allocated to freight $59.73; to passenger, $85.40, and a common item of $30.04. Dividing this common item upon the basis of the allocations, we have 41.1562 per cent as the freight percentage and the application of this percentage gives us the amount shown opposite this account on our Exhibit C. W. H. No. 2. This completes the division between freight and passenger, of the third general account, of Expenses, that is, Traffic Expenses, and out of $171,997.21, assigns $76,668.55 to freight.

Q. Referring, now, to General Account No. 4, Transportation expenses, shown on Exhibit No. 2, you may explain Primary Account No. 61. A. Primary Account No. 61, Superintendence. We have an allocation to freight of $2,018.24, to passenger, $246.93. The balance, $57,310.04, has been divided between freight and passenger upon the basis of all accounts excepting 61, 77, 97, 98, 104 and 105, which percentage gives us 62.509 per cent as the freight percentage, and the application of this percentage gives us the figures shown opposite this account on our Exhibit C. W. H. No. 2. I would say, here, that the reason for the omission of Account No. 61 is, of

course, that it is divided upon this basis, the same basis, and, of course, does not enter into the computation. Account No. 77 is Operating Joint Tracks, Yards and Terminals, Dr. This is not under the superintendent's direct division, as it is a charge which comes from another road, and has already stood its proportion of the superintendence when it is charged to him. There is a slight amount of supervision in checking up, but it has been ignored. Accounts No. 104 and 105 are in the same category. The Dr. Accounts in Account No. 104 have already been supervised by the superintendents of the road from which they are received, and are not particularly under his supervision, and he has already supervised all the items going to make up Account No. 105 before they have been turned over to the other road, and therefore they are omitted from this calculation.

Q. Account No. 62. A. Account No. 62 is Dispatching Trains. This has been divided between freight and passenger upon the basis of the revenue train mileage which assigns 47.5233 per cent to the freight business, or the amounts shown opposite this account upon Exhibit C. W. H. No. 2.

Q. Explain the division of Primary Account No. 63. A. Account No. 63 is Station Employes. $78,929.93 of this account has been allocated to freight, and $26,335.43 to passenger, leaving as a common item, $192,738.24. This has been divided between freight and passenger upon the earnings basis, that is, the gross earnings basis, 67.7156 per cent to freight, giving us the result shown opposite this account upon our Exhibit C. W. H. No. 2.

Q. Explain Account No. 64. A. Account No. 64, Weighing and Car Service Associations. This has

been allocated by the Northern Pacific entirely as a freight item, and it so appears.

Q. Account No. 66. A. Account No. 66, Station Supplies and Expenses. $3,055.02 of this account has been allocated to freight, $5,831.27 to passenger, leaving as a common item $12,346.42, one-half of which has been divided between freight and passenger upon the basis of the train miles, as representing the amount of the station expenses, which, we might say, go into the tracks, yards and stations. As a large part of those expenses was used for lighting the tracks, and taking care of them, they are charged up in the calculation to station expenses. The other half is divided on the basis of Account No. 63—I mean, the other half of the common expenses—which gives us the result shown opposite this account on Exhibit C. W. H. No. 2.

Q. Now, can you explain Accounts 67 to 76, inclusive, together? A. Yes, sir. The testimony of the Northern Pacific in this case was that the division of these accounts was based upon the computation of the time of the engines and men in the switch service, and we have accepted their figures on that basis and entered them here, and entered them on Exhibit No. 2, with the exception that we have in this case made the allowance of 4.4 per cent from the switching on account of the passenger proportion of company material carried on freight trains. The item is entirely a freight matter in the yards, as the Northern Pacific have set it up and it can be considered directly that way. In doing so they have handled the freight which carry company material, and therefore we have made the deduction of 4.4 per cent from the item as shown by them.

Q. Primary Account No. 77. A. Primary Account No. 77, Operating Joint Yards and Terminals, Dr., has been divided upon the car mile basis, assigning 82.0792 per cent to freight, or the amount shown opposite this account on Exhibit No. 2. There are no charges under Account No. 78 on the books of the company, for the state of North Dakota.

Q. Could you explain the division between freight and passenger under Accounts 80 to 88, inclusive, together? A. Yes, sir. All of these accounts, the Northern Pacific figures have been taken for them, as they are practically allocated, or, if not allocated, divided on an equitable basis, which amounts to allocation. From the figures furnished us by the Northern Pacific Road, we have, however, made the deduction for the passenger proportion of the company material carried on freight trains, of 4.4 per cent. This produces the figures shown opposite this account on our Exhibit No. C. W. H. 2.

Q. Take Account No. 89, and explain the division of that account as between freight and passenger. A. Train Supplies and Expenses. $28,929.74 of this has been allocated to the freight traffic, and $72,986.01 has been allocated to the passenger business, leaving a common item of $419.85, which has been divided upon the basis of the allocations, which assigns 28.3803 per cent to freight, and gives the result shown opposite this account on Plaintiff's Exhibit C. W. H. No. 2.

Q. Account No. 90. A. Interlocking, Block and Other Signal Operation. This has been divided on the basis of the train miles, including switching, which assigns 50.62 per cent to the freight traffic, or the amount shown opposite this account on our Exhibit C. W. H. No. 2.

Q. No. 91. A. Crossing Flagmen and Gatemen. This account has also been divided upon the basis of the preceding account, or 50.62 per cent to freight, giving us the amount shown opposite this account on Plaintiff's Exhibit C. W. H. No. 2.

Q. Account No. 93. A. Account No. 93, Clearing Wrecks. $7,767.59 of this account has been allocated to freight, $514.01 to passenger, leaving $3.80 as a common item. This $3.80 has been divided on the basis of the allocations, or 93.7933 per cent to freight, giving us the amount shown opposite this account on our Exhibit C. W. H. No. 2.

Q. You may now explain Primary Account No. 94. A. Account No. 94, Telegraph and Telephone Operation. One-half of the account has been assigned on the train miles, and one-half on the car miles, between freight and passenger, the percentage being, as mentioned in Account No. 14, 64.8013 per cent. The reasons for the same is mentioned in the account for this division. This gives us the amount shown opposite this account on our Exhibit C. W. H. No. 2.

Q. Will you explain the division of Accounts 97 and 98? A. I will have to take those separately, on account of the allocations in them. Account No. 97, Stationery and Printing. $4,056.27 has been assigned to freight, and $3,638.54 allocated directly to passenger, leaving $6,419.37 as a common item, which has been divided between freight and passenger upon the same basis as Account No. 61, or all accounts in this block of expenses, except 61, 77, 97, 98, 104 and 105, that is, 62.509 per cent to freight, and giving us the totals found opposite this account upon Exhibit No. C. W. H. 2.

Q. Account No. 98. A. Account No. 98, Other

Expenses, $776.21 has been allocated to freight and $211.14 to passenger, leaving a common item of $2.91, which has been divided between freight and passenger upon the basis of the allocations, or 78.6155 per cent to freight, giving us the amounts shown opposite this account upon our Exhibit C. W. H. No. 2.

Q. Account No. 99 shows the total allocation to freight? A. Yes, sir. The Loss and Damage to Freight is entirely a freight item.

Q. And Account No. 100 is entirely a passenger item, is it? A. Yes, sir, being Loss and Damage to Baggage.

Q. You may explain the division of Account No. 101. A. Account No. 101 is Damages to Property. $20,830.49 of this account has been allocated to freight, $3,396.38 has been allocated to passenger, leaving, as a common item, $10,441.61, which common item has been divided on the basis of the train miles, including switching, or 50.62 per cent to freight, giving us the amount shown opposite that account on our Exhibit C. W. H. No. 2.

Q. Will you now explain Primary Account No. 102? A. Yes. This account is Damage to Stock on Right of Way. $4,837.67 of this has been allocated to freight and $6,232.27 to passenger, leaving as a common item of $5,929.67, which common item has been divided between freight and passenger upon the basis of the revenue train miles, as the damage to stock on the right-of-way would not occur within yard limits, but would be subsidiary to the revenue traffic. That gives us 47.5332 per cent to freight, which gives us the figures shown opposite this account on our Exhibit C. W. H. No. 2.

Q. Explain Account No. 103. A. Account No. 103,

Injuries to Persons. $42,931.94 of this account has been allocated to freight and $28,703.33 to passenger, leaving as a common item $15,375.99. This has been divided between freight and passenger upon the basis of the train miles, including the switching which is 50.62 per cent to freight. The application of this percentage to the common item gives us the results shown opposite this account on our Exhibit C. W. H. No. 2.

Q. Account No. 104. A. Account No. 104, Operating Joint Tracks and Other Facilities, Dr. This has been divided upon the basis of the car miles, between freight and passenger, which assigns 82.0792 per cent to freight, or the amount shown opposite this account on our Exhibit C. W. H. No. 2.

Q. Explain Account No. 105. A. Primary Account No. 105, Operating Joint Tracks and Other Facilities, Cr. This is a credit account. The items are culled from the preceding accounts in this block of expenses, and therefore it has been divided the same as Account No. 61, or all the accounts in the block, excepting Accounts Nos. 61, 77, 98, 97, 104 and 105, assigning 62.509 per cent to the freight business, or the figures shown opposite this account on our Exhibit C. W. H. No. 2. This completes the division of the Fourth General Account or Block of Expenses, Transportation Expenses, and out of a total of $2,673,960.59, assigns $1,671,563.34 to the freight column.

Q. These totals represent the totals of the columns of figures under General Account No. 4, less the credit items shown in Primary Account No. 105, is that right? A. Yes, sir. Wherever there is a star on here, it means that it is a credit figure, and in the

addition of the account, should be deducted and not added to the general total.

Q. You may now take up the Primary Accounts constituting the Fifth General Account, and explain Account No. 106. A. Account No. 106, Salaries and Expenses of General Officers. $1,278.66 of this account has been allocated to freight and $499.54 has been allocated to passenger, leaving as a common item, $22,069.47, which has been treated as a common item, and in this case has been carried down to the total of the division of this account, and not shown opposite this account, but shown in the total down at the end.

Q. Account No. 107. A. Primary Account No. 107, $27,225.52 of this account, Salaries and Expenses of Clerks and Attendants, has been charged directly to freight and $7,480.40 to passenger, leaving $36,583.45 as a common item.

Q. Account No. 108? A. Account No. 108, General Office Supplies and Expenses. $436.93 of this account has been allocated to the freight traffic, $7.62 to the passenger traffic, leaving a common item of $3,980.52.

Q. What is the purpose of omitting the statement of these figures opposite the primary accounts? A. Because the totals of the common items in these accounts were carried in a block under one percentage at the end, and not worked out each one. I had to accommodate myself to that in giving the testimony.

Q. You may now explain Primary Account No. 109. A. Account No. 109, Law Expenses. $1,302.19 has been allocated to freight, and $932.38 to passenger, leaving as a common item of $21,424.59.

Q. Account No. 110. A. Account No. 110, In-

surance. Of this account, $408.23 has been allocated directly to freight and $96.50 directly to passenger, leaving as a common item, $792.56.

Q. Explain the next item, Account No. 113. A. Account No. 113, Stationery and Printing. $2,475.36 has been allocated directly to freight, and $176.34 to passenger, leaving as a common item, $6,450.50.

Q. Explain the last item, Account No. 114. A. Account No. 114, Other Expenses. Sixty-five cents of this has been allocated to freight, and $9.91 has been allocated to passenger, leaving $17,995.55 as a common item. This gives a total in the general expenses, allocated to freight, of $33,127.53; to passenger, $9,202.69, and a common item of $109,302.67, which common item has been divided between freight and passenger upon the basis of all the operating accounts up to this block of expenses, that is, General Expenses, assigning 64.3023 per cent to the freight traffic, or $70,384.13, which, added to the direct allocations to freight, of $33,127.57, gives us a total charge to freight, as shown, of $103,411.86, the amount shown upon Exhibit No. 2. This completes the division between freight and passenger upon the basis which I have mentioned, that is, the state as a unit, and out of a total of $5,192,299.62, assigns $3,344,678.60 to the freight traffic.

Q. You may now explain the 4.4 per cent company material percentage, used by you in preparing this division. A. It appears from the records of the company that the revenue ton miles is 701,732,022. That the company tons one mile were 104,650,459, which latter figure is 12.98 per cent of the total—of the other. In order to determine about what the amount of this would be, we have taken accounts 2 to 16,

inclusive, and the expenses thereunder as representing the amount of company material—as representing the percentage between freight and passenger of the amount of company material which would be used in the passenger and freight traffic, relatively. We have also taken account No. 73 in the operating account, which represents the fuel for locomotives, switch, between freight and passenger. We have also taken Account No. 82, which represents fuel for road locomotives. We have added the expenses under these accounts together, and it shows a total of $1,766,-090.54, of which total amount the freight proportion is $1,165,930.62, showing a freight proportion of 66 per cent. We have therefore taken the balance, thirty-four per cent, as representing the amount of company material, which is due to passenger, carried on the freight trains, multiplying our 12.89 per cent by this 34 per cent, which gives us 4.4132 per cent as the passenger proportion, or 4.4 per cent, which we have used. This is an approximate figure, but fairly accurate on account of the method which we have used in the division of these various expenses between freight and passenger traffic.

Q. Now, the explanations that you have given of the division of these several accounts between freight and passenger, has reference only to the production of the figures shown under the general head, Freight, on Exhibit 2; is that right? A. Yes, sir.

Q. Will you now explain how you arrived at the amount shown under the column, Coal, for the first primary account? A. The first account, Superintendence, is divided, as usual, upon the basis of Account Nos. 2 to 16, inclusive, which shows 1.3547 per cent of the superintendence was divided to the lignite coal

service in North Dakota. The application of these figures to the freight figures would give us the amount shown under the column, Coal, on Exhibit No. 2. We first divided all the other expenses from 2 to 16, inclusive, upon the bases which I will mention, and then took the totals of these as compared with the totals of the same account for the freight account, and deduced this percentage.

Q. You may now explain Primary Account Nos. 2 to 11, inclusive, together, if you can. A. The gross weight of our freight is, as we have shown, 1,729,-489,554 ton miles, which includes the 53,459,620 ton miles of switching, which latter figure is 3.0909 per cent of the total. This would leave 96.9091 per cent as due to the train movement. That has been taken upon the basis of the coal on all trains, light and dead, to the total of the light and dead weight of all freight on all trains, less company material, of course, and the amount of the light and dead weight of coal is 18,676,070 ton miles. Cars which carry coal are taken on the same average weight as the cars carrying all of the company freight. This is sixteen tons. The corresponding dead weight of all freight, that is, the cars—and here, of course, we leave out of the computation the weight of the engine and cabooses, just freight cars and their contents—is 1,392,420,580, which shows that of this live and dead weight of coal to all, the percentage is 1.3556 per cent. If we then take that percentage of 96.9091 per cent of the traffic, which is shown by the amounts of the weight which are on the train and not in the switching, it gives us 1.3137 per cent. We have still left to deal with the 3.0909 per cent of the switching. Mr. Johnson's Exhibit No. 22 gives us the switch cost on which he

bases his cost per car movement, as $149,471.21. He includes in this the items of the proportion of the superintendence and of the repairs to switch engines, which we have considered elsewhere in our division, separately. By reference to Exhibit No. 23 we find that these items I just mentioned are 12.27 per cent of the total of the items which Mr. Johnson used as yard expenses, we having treated that much of his expenses in a separate way in this division. Deducting this percentage from the $149,471.21, we have left $131,131.09. If we then deduct 4.42 per cent for the passenger percentage of company material on freight trains, it leaves us $125,361.32. This amount divided by Mr. Johnson's car movements of 599,022, shown also upon his Exhibit No. 22, gives us a cost of 20.9 cents per car movement, or, we will call it, 21 cents. The car movements as per Mr. Johnson's Exhibit No. 22, outside of train breaking, or the item which he calls breaking up trains, are 18,248, which he says consists of half loads and half empties. We will take the loaded movement first. One-half, which is 9,124 movements. To this we will add the 1,636 train-breaking movements in total, making a total of 10,760 loaded movements. Please note that we have given these train-breaking movements as a full loaded movement. The empty movement chargeable to the loaded is, according to the corrected figures of Northern Pacific Exhibit No. 17, 71.42 per cent of the total. Therefore, adding this percentage to the 10,760 loads gives us 18,445 as the proper number of movements chargeable to the lignite coal, which, multiplied by the 21 cents we have just found above, gives us $3,873.45 as the amount of the yard expenses which reflect the switch movements, I mean under Accounts

67 to 76, inclusive, or yard movements. I have to go down, now, to the fourth block of accounts, in order to obtain this percentage which I am going to use up here. This $3,873.45 divided by the $129,991.-57, which are the items 67 to 76, inclusive, for all freight, gives us 2.9797 per cent as the relation existing between lignite coal switching as shown by the movements, and all switching. Therefore, multiplying our 3.0909 per cent, which is the weight relation of our total freight movement by this lignite per cent, of 2.9797, gives us .0921 per cent for our switch movement. Adding the two together gives us 1.4058 per cent for the factor to apply to the total freight expenses under these accounts Nos. 2 to 11, inclusive, in order to determine the amount which should be properly charged to lignite coal. Applying this percentage of 1.4058 to each of these accounts, gives us the amounts shown opposite this account under the column headed Coal, on our Exhibit C. W. H. No. 2.

Q. Take Primary Account No. 12, and explain the division of that account. A. Account No. 12, Snow and Sand Fences and Snow Sheds, has been divided upon the basis of the percentage of the line trains, as distinguished from the switching as shown by the relative weights, or 1.3556 per cent of the line movement chargeable to lignite coal, which gives us the result shown opposite this account.

Q. Explain Primary Account No. 13. A. Account No. 13, Signal and Interlocking Plants. As the switch movement enters into this, they have been divided upon the same basis of the composite weight due to line and switch expenses, combined, which we have just used in Accounts Nos. 2 to 11, 1.4058 per cent

to lignite coal, giving the result shown opposite this account on our exhibit C. W. H. No. 2.

Q. Explain the division of Account No. 14. A. Account No. 14 is divided between freight and all coal on the basis of the car mileage percentage of lignite to all freight, or of 1.3748 per cent to lignite coal, the car mileage of all being 43,168,035, lignite coal 593,462.

Q. Account No. 16. A. Account No. 16, Buildings, Fixtures and Grounds. This is divided upon the basis of the total freight earnings of $6,368,277.67 which, you will recollect, I used in my division between freight and passenger as the total freight earnings, and the $58,953.07 which is shown to be the earnings on the lignite coal business, which gives us .9257 per cent to lignite coal, and the result shown opposite this account on our Exhibit No. C. W. H. 2.

Q. Will you now explain Accounts Nos. 18, 19 and 20 together? A. Yes. They are Roadway Tools and Supplies, Injuries to Persons, and Stationery and Printing, and have been divided upon the same basis as Account No. 1, Accounts Nos. 2 to 16, inclusive, showing the percentage to lignite coal of 1.3547 per cent and giving the result shown opposite this account on Exhibit No. 2.

Q. Explain Account No. 22. A. Account No. 22 is Maintenance of Joint Tracks, Yards and Other Facilities, Dr. This has been divided upon the same basis as telegraph and telephone expenses, which was on the car mile basis of 1.3748 per cent to lignite coal, giving us the result shown opposite this account on Exhibit No. 2.

Q. You may explain Account No. 23. A. Account No. 23 has been divided upon the basis of Accounts

Nos. 2 to 16, inclusive, or the same as the Account, Superintendence, No. 1, and for the reasons we explained in our division of this account between freight and passenger. This completes the division of Maintenance of Way and Structures Account between freight and lignite, and assigns $9,213.22 to the lignite coal business.

Q. Continuing the Second General Account, you may explain Primary Account No. 24. A. Account No. 24, Superintendence, has been divided upon the basis of Accounts Nos. 25 to 45, inclusive, as between freight and lignite coal, and shows a percentage of 1.6205, or the amounts shown opposite this account on Exhibit No. 2.

Q. Will you explain the division of Accounts Nos. 25, 26 and 27, together? A. By reference to Mr. Johnson's N. P. Exhibit No. 20, we find that the main line way freight trains had a mileage of 38,910. The average gross load on this was 669 tons, as shown by the statement, which gives a total ton miles on main line way freight of 26,030,790. The cost per train mile of road expenses for way freight we have declined to consider as being any more, on main line way than on main line through, when we consider thoses expenses as the result that has anything to do whatever with lignite coal traffic. The expenses of our way freights are based upon the fact that owing to our peddling car we have an extra brakeman, and an allowance is made to the men for way runs which is based upon the fact that they are running on a way train, and the definition of a way train and the distinction which is drawn between the men when they receive extra compensation, is that they are running on this train which carries the peddling

car. Outside of that basis there is no distinction between a way train covering mileage on the main line and any other train on the main line. There is no extra wages paid, as can be readily shown by investigation of the schedule of wages. I have therefore declined in the consideration of my cost of the way trains, to consider that this cost is any higher per train, as far as lignite coal bears on the subject, it being entirely due to L. C. L. lots, than is the main line through. We then take the mileage of 38,910 train miles on the way freights, and multiply it by the costs of the main line through freights, or 76.5, we have a cost of main line way freight of $29,766.15, which represents the cost of those main line way trains, insofar as they are caused by the lignite coal traffic, or traffic of that character, that is, the carload traffic. Dividing our ton miles which we have just produced, of 26,030,790 ton miles into this cost, we have a cost of 11.43 cents, which is the cost per 100 ton miles, instead of the figure of 13.83 cents as shown by Mr. Johnson upon his Exhibit No. 20, bearing in mind all the time that this main line way freight is reduced to lignite coal terms, and the extra expenses eliminated which extra expense we consider is due to the less than carload business, and not to the carload business; in other words, to the peddling expense. If we divide this 11.43 by the 5.21 which is shown by our correction of Mr. Johnson's figures for the main line through trains, his figures being 5.18, we find that this main line way freight coal cost is 2.19 times the cost of the traffic upon the through freights on the main line. On the branch lines we have the 72,143 train miles mentioned, which includes the three-fourths, only of the mixed train mileage. As far as

we could tell from the figures we had at the time, there should be added to this mileage, 5,924 miles for the extra one-fourth, the omitted one-fourth of the mixed train mileage. I think those are close to the actual figures Mr. Johnson gave us, but I do not have the actual figures. This gives us 78,117 as the train mileage. The average loading given by Mr. Johnson, of his trains, was 404 tons. Multiplying this train mileage of 78,117 by the 404, gives us a ton mileage of 31,559,268, which, divided into the cost shown upon N. P. Exhibit No. 20 for branch line freight trains, of $45,129.62, gives us $14.30 as the amount per one hundred ton miles for freight on branch line trains, or this is 2.75 times the 5.21 shown upon main line through freights. This gives us the figures upon which we can equate our ton miles and arrive at the cost per ton mile for lignite. Upon Mr. Johnson's Exhibit No. 22 he shows the equation of his ton miles in the last paragraph of the first sheet. Taking his ton miles, equating them in the same manner that he has done, we have 579,387,280 ton miles on the main line through trains, which we have considered as one. We have 56,456,576 ton miles upon the main line way trains, which we have considered should be equated on the basis which I have produced, of 2.19. We then have, on the same Exhibit, N. P. No. 22, branch line train ton miles, 56,888,167, which we equate upon the basis of 2.75. This gives us a total of equated ton miles of 884,219,640. Now, by referring to N. P. Exhibit No. 17, and using the figures which I mentioned this morning as applicable to the year, we have a loaded car mileage in the main line local trains of 178,166, which we multiply by 2.19, our equated figure for that move-

ment, giving us an equated car mileage of 390,184. We have, on the same exhibit, that is, N. P. Exhibit No. 17, in through train loaded car miles, 129,648, which we leave at unit, and add 129,648 to the total equated car miles. We have on branch line trains 38,387 car miles, which we equated on the basis of 2.75, making 105,564 equated car miles, loaded, which gives us a total equated car mileage loaded of 625,396, against an actual car mileage of 346,201, or the factor which should be used for the equation of our car miles of loaded coal is 346,201 divided into 625,396, or 1.81. Now, that gives us the relation of the cost of the lignite coal transportation. If, then, we multiply our 9,380,678 ton miles of lignite coal by our 1.81, we have an equated ton mileage of 16,979,027. Dividing our equated ton miles total of 884,219,640 into this, we have an equated ton mile percentage to be charged to lignite coal, of 1.9202 per cent. On locomotive repairs, we find from the figures shown, that the switching mileage on the Northern Pacific Railroad bears the relation to the total engine mileage, of 13.2126 per cent. Now, of our total engine expenses we have $206,808.21 as the freight charge; 13.2126 per cent of that is switching, or $27,324.81, leaving as the line proportion of that, $179,483.90. We have just found that 1.9202 per cent of that line expense was chargeable to lignite coal, which gives us a charge to lignite coal for line expenses of $3,446.45. The switching proportion of these engine repairs is $27,324.81, and has been divided upon the switching percentage which we have already produced, of 2.9797 per cent, which assigns to lignite coal $814.20, making the total charge to lignite coal $4,260.65, as shown opposite this account No. 25 upon

Plaintiff's Exhibit C. W. H. No. 2. Computing what percentage of the $206,808.71 which is the engine repairs expenses, we find that it bore the proportion of 2.0602 per cent. We have applied this 2.0602 per cent to the two following accounts, Nos. 26 and 27, Steam Locomotive Renewals and Steam Locomotive Depreciation, respectively, giving the amount shown opposite those accounts on Exhibit No. 2, as the lignite coal expenses.

Q. The next three primary accounts are passenger accounts? A. Yes, sir.

Q. You may explain Account No. 34. A. No. 34, 35 and 36, being freight train car repairs, Renewals and Depreciation, respectively, have been divided on the car mile percentage. I have already produced the 1.3748 per cent to lignite coal, giving the result shown opposite this account upon the last column of Exhibit No. 2.

Q. Can you in the same way explain Accounts Nos. 43, 44 and 45? A. These accounts, being Work Equipment Repairs, Work Equipment Renewals and Work Equipment Depreciation, have been divided upon the same basis as we divided Accounts Nos. 2 to 14 upon, that is, the composite expenses as between all freight expenses and lignite coal. This percentage is 1.4042 per cent to lignite coal, and gives the result shown opposite this account upon Exhibit No. 2.

Q. Will you explain Accounts 46, 48, 49 and 50 together? A. They being Shop Machinery and Tools, Injuries to Persons, Stationery and Printing, and Other Expenses, have each been divided upon the basis of Accounts Nos. 25 to 45, inclusive, which gives the percentage of 1.6205 per cent to lignite coal, or the amounts shown opposite these accounts on Plain-

tiff's Exhibit C. W. H. No. 2, last column. This completes the division of the second block of expenses, Maintenance of Equipment, between lignite coal and all freight, and assigns $13,173.52 to lignite coal.

Q. Taking up the next general account, Traffic Expenses, you may explain Primary Account No. 53. A. Primary Account No. 53, Superintendence. That is divided upon the basis of all the accounts in this block of expenses, as between lignite coal and all freight, or .2719 per cent to lignite coal.

Q. Explain Account No. 54. A. Account No. 54, Outside Agencies. We have assigned none of these expenses whatever to lignite coal.

Q. The same is true of Advertising, is it? A. Yes, sir.

Q. Can you explain Accounts Nos. 56, 58, 59 and 60 together? A. All of these accounts, being Traffic Associations, Industrial and Immigration Bureaus, Stationery and Printing, and Other Expenses, have been divided upon the earnings basis, which assigns .9257 per cent to the lignite coal traffic, or the amount shown opposite these accounts in the last column of Exhibit No. 2. That completes the division of the traffic expenses between all freight and lignite coal, and assigns $208.46 of the traffic expenses to lignite coal.

Q. Under the next general account, you may explain Primary Account No. 61. A. This has been divided upon the basis of all the accounts in this block of expenses when we divided the account of Superintendence between freight and passenger, and assigns 1.8205 per cent to lignite coal, or the amount shown opposite this account on Exhibit No. 2.

Q. Explain the division of Account No. 62. A.

Account No. 62, Dispatching Trains. This is divided upon the basis of the equated ton miles for the line, not including switching, as already produced by me, being 1.9202 per cent chargeable to the lignite coal business, or the amount shown opposite this account on Exhibit No. 2.

Q. Account No. 63. A. Account No. 63, Station Employes. This account divided as follows: The total amount chargeable to this account, before we had deducted our 4.4 per cent for the amount of company material carried on passenger trains, was $209,443.79, of which $52,645.00 has been charged by us as the amount of freight handlers. In order to make it just an even figure I deducted from this $209,443.79, $52,643.79, which left us $156,800.00, even, for the amount of the freight station employes properly chargeable to lignite coal, or to carload lots. We found, on Exhibit No. 22, that the equated carloads were 358,975. This from Mr. Johnson's Exhibit No. 27. Dividing that into the amount which I have just mentioned, it gives us the sum of 43.68 cents per car chargeable to carload freight. Therefore, we have taken our lignite coal cars, or 4412, and multiplied them by 2 to show the two services, both initial and terminal, and in turn have multiplied that by 43.68 cents, which produces $3,854.32, as the amount of station service properly charged to lignite coal, as shown on our Exhibit No. 2, opposite this account.

Q. Explain Account No. 64. A. Account No. 64, Weighing and Car Service Associations, divided on the basis of the car miles, or 1.3748 per cent to lignite coal, producing the amount shown opposite this account in the last column of our Exhibit No. 2.

Q. Account No. 66. A. In bringing over this ac-

count into the freight and passenger, one-half of it was brought over upon the train mile basis, and the other half upon the basis of Account No. 63. The result is, of this, that $2,933.71 was brought over upon the basis of train miles, and $7,393.70 upon the basis of Account No. 63, which latter amount includes the allocation as brought over under Account No. 63. The amount of $2,933.71 is divided between freight and lignite coal, upon the basis of the percentage of car and contents, or of the gross weight basis of lignite coal, the percentage being 1.3556 per cent. I have produced this percentage heretofore. The balance of the account is divided on the basis of Account No. 63, which assigns a percentage of 1.8403 per cent to the lignite coal service. Account No. 63, being Station Employes, the combination of these two percentages and the amounts which I have mentioned, produced the amount set opposite this account in the last column of our Exhibit C. W. H. No. 2.

Q. Will you explain Accounts Nos. 67 to 76, inclusive, together? A. Yes, sir. In my production of the percentage upon which Accounts Nos. 2 to 11 were divided, I have already produced this figure, or $3,873.45, using that figure in my production of the percentage in Accounts Nos. 2 to 11, inclusive. It is fully explained there.

Q. Take, now, Account No. 77, and explain it. Account No. 77 is divided upon the car mile basis, assigning 1.3748 per cent to lignite, or the amount shown opposite this account on Exhibit C. W. H. No. 2.

Q. Account No. 78. There is no credit there. A. There is no charge or credit for Account No. 78 on the books of the company.

Q. Will you explain Accounts Nos. 80 to 88, inclusive, together? A. Accounts Nos. 80 to 88, inclusive, being road train expenses, have been divided upon the basis of the road percentage of lignite coal to all, which I have already produced, or 1.9202 per cent, giving the result shown opposite the last of these accounts on Exhibit C. W. H. No. 2. If you will note, they have all been lumped and carried over into the lignite coal in one item.

Q. Explain Account No. 89. A. Account No. 89, which is Train Supplies and Expenses, have been brought over on the basis of the car miles, as between lignite coal and all freight, or 1.3748 per cent to lignite coal.

Q. Can you explain 90, 91 and 93 together? A. Yes. These accounts, which are Interlockers, Block and Other Signals, Crossing Flagmen and Gatemen, and Clearing Wrecks, have been divided on the same basis, which is 1.9202 per cent to lignite coal, which is the road train percentage appertaining to lignite coal, which I have produced heretofore.

Q. Explain Account No. 94. A. Account No. 94, Telegraph and Telephone Operation, is divided between freight and lignite coal on the basis of the car mileage percentage, or 1.3748 per cent lignite coal, giving the amounts shown opposite this account on our Exhibit C. W. H. No. 2.

Q. Account No. 97. A. Accounts Nos. 97 and 98 can be explained together, being Stationery and Printing, and Other Expenses. They have been divided upon the same basis as Account No. 61, Superintendence; that is, all accounts in this block of expenses, or 1.8205 per cent to lignite coal, giving the result shown opposite this account on Exhibit No. 2.

Q. You may explain Accounts Nos. 99 to 103, inclusive. A. Account No. 99, Loss and Damage to Freight. I have assumed none of this to lignite coal. Coal, as a general proposition, is not subject to damage. I have not been able to find any damages paid on account of lignite coal. If there are such, they are susceptible of actual proof, and such figures brought in would be accepted. In the meantime I have not heard of any loss and damage on freight that could be assigned to this account, and I have omitted it entirely from any computation as to loss and damage.

Q. There are none chargeable under Account No. 100 to lignite coal? A. There are no charges to lignite coal in this account, it being a passenger item.

Q. What is the explanation of the division of Account No. 101? A. Accounts 101, 102 and 103, Loss and Damage Accounts, or, Damage and Injury Accounts, to property, to stock and to persons, have been all divided upon the line train percentage of 1.9202 per cent to lignite coal, giving the amount shown opposite the last of these accounts on Exhibit No. 2, they all being brought over as a unit.

Q. Account No. 104. A. Account No. 104 is divided upon the car mile basis, 1.3748 per cent to lignite coal, giving the amount shown opposite this account on our Exhibit C. W. H. No. 2.

Q. Account No. 105. A. Account No. 105. This is Operating Joint Tracks and Other Facilities, Cr. This is divided upon the basis of Account No. 61. The same reason applies as applied to the division of Account No. 61, and it assigns 1.8205 per cent to lignite coal, the account from which this is made up being culled from the preceding accounts. This gives a total of the transportation expenses assignable to lig-

nite coal of $30,429.59, as shown upon our Exhibit C. W. H. No. 2.

Q. Under the fifth general account, you may explain Primary Account No. 106. A. Primary Account No. 106 has been divided between coal and lignite coal on the basis of the preceding accounts, up to this point, that is, up to and including Account No. 105, which assigns 1.6359 per cent to lignite coal, or $1,691.71, as shown opposite the total of this general account upon Exhibit No. 2. This completes the division of all operating expenses between freight and lignite coal, and assigns $54,716.50 to lignite coal upon this basis, which is the state considered as a unit.

(Papers produced and marked Plaintiff's Exhibit C. W. H. No. 3 and Plaintiff's Exhibit C. W. H. No. 4, respectively, by the reporter, for identification.)

Q. Now, Mr. Hillman, I believe you stated this morning that you had prepared an exhibit showing the operating expenses of the Northern Pacific Railway Company for the State of North Dakota, taking the main line as a unit, instead of the state. Is that correct? A. Yes, sir, I have divided the expenses on an exhibit which I have prepared for the main line, treating the main line separately as if it were the only thing we had under consideration, and which it was at the time, so that the expenses on the main line are shown separately.

Q. You may examine Plaintiff's Exhibit No. C. W. H. 3, and state if that is the exhibit to which you refer. A. Yes, sir, it is.

Q. You may explain how the division was made between freight and passenger, and between freight and coal, on that exhibit. A. That division has been

made on the same basis as I have explained at length in my Exhibit No. 2, using in that the main line factors only, but upon exactly the same plan and same principle as my Exhibit No. C. W. H. 2 was prepared.

Q. You have followed throughout the same method in making the division in each primary account? A. Yes, sir.

Q. And the same is true with reference to the division between lignite coal and all freight, is it not? A. Yes.

Q. I believe you stated, also, that you had prepared an exhibit showing the division between freight and passenger of the total operating expenses, taking the branch lines in North Dakota as a unit, this exhibit being prepared from the figures of the Northern Pacific Railway Company? A. Yes, we have prepared the branch line division in the same way, using the factors pertaining to the branch lines upon the same basis as I made the division on Plaintiff's Exhibit C. W. H. No. 2. I will state that the reason why I did this was because I wished to show if, treating the state as a unit would have any effect one way or the other in determining this matter, or as to treating the branch lines separately on the factors set up by their operating figures. I did the same in the Minnesota case as between main line and branches, and between divisions, and found that the percentage varies so very slightly that it is negligible. The figures I quoted this morning show that the percentage of variation in this case was very small, being only $2,715.00 out of a total of over $5,000,000.00. It is really not necessary for me to follow these exhibits out, or to file them, but as I had already made them

for my own satisfaction, I thought I would introduce them.

Q. The last exhibit to which you have referred is Plaintiff's Exhibit No. C. W. H. 4, is that correct? A. Yes.

Q. You made the division between freight and passenger in each primary account just the same as in Plaintiff's Exhibit No. C. W. H. 2, did you? A. Yes, sir.

Q. Your division between coal and all freight was made for each primary account in the same way as in that exhibit? A. Yes, sir.

Q. That is correct, is it? A. It is, yes, sir.

Q. Have you prepared any exhibits showing the result of your computation, Mr. Hillman? A. Yes, sir, I prepared an exhibit showing the result derived from my Exhibit No. 2, where I used the state as a basis.

(Paper produced and marked Plaintiff's Exhibit C. W. H. No. 5, for identification, by the reporter.)

Q. The exhibit to which you refer in your answer is Plaintiff's Exhibit No. C. W. H. 5, is it? A. Yes, sir.

Q. According to that exhibit, you find the total operating expenses for carrying on the lignite coal business in North Dakota, on the Northern Pacific Railway, to be $54,716.50? A. Yes, sir, which figures were derived from my Exhibit No. 2.

Q. And the earnings item which you mention there was derived from what figures? A. From figures furnished by the Northern Pacific Railway Company.

Q. And according to this exhibit, there is a margin for the railway company of how many dollars? A. A profit above operating expenses of $4,236.57.

Q. Now, that is exclusive of taxes? A. Yes, sir.

Q. Will you, for the record, Mr. Hillman, deduct the amount of the taxes shown by Mr. Johnson in Northern Pacific Exhibit No. 24. A. The amount of taxes shown by Mr. Johnson in his Exhibit No. 24, are $2,424.15. Deducting this from the $4,236.57, which I have shown as the profit above operating expenses, on Exhibit No. 5, gives a profit of $1,812.42 on lignite coal, above operating expenses and taxes.

Q. Have you drawn a conclusion in a similar way from your computation taking the main line as a unit and the branch lines as a unit, and then combining the two? A. Yes, sir.

(Paper produced and marked Plaintiff's Exhibit C. W. H. No. 6, for identification, by the reporter.)

Q. And this result is shown by Plaintiff's Exhibit C. W. H. No. 6, is it? A. Yes, sir.

Q. You may state the result shown by this exhibit. A. Main line operating expenses, as shown by Exhibit No. 3, $43,695.85; branch line operating expenses, the operating expenses for lignite coal as shown by Exhibit No. 4, are $10,869.24, a total operating expense on this basis of $54,565.09. Earnings were $58,953.07. Operating profit, $4,387.98. If you deduct the amount of the taxes as shown in Northern Pacific Exhibit No. 24, there is left as a margin of profit for the railway company of $1,963.83.

Mr. Young: The plaintiff at this time offers in evidence its Exhibits C. W. H. No. 1, C. W. H. No. 2, C. W. H. No. 3, C. W. H. No. 4, C. W. H. No. 5, and C. W. H. No. 6.

Mr. Young: That is all.

By consent of the parties, adjournment was here taken until July 1, 1912, in the offices of the North-

ern Pacific Railway Company, in the City of St. Paul, State of Minnesota.

C. W. HILLMAN,

a witness on behalf of the plaintiff, having been heretofore duly sworn, was recalled for cross-examination, and testified as follows:

CROSS-EXAMINATION.

By Mr. Donnelly:

Q. Mr. Hillman, referring to your Exhibit C. W. H. No. 1, that represents your criticism and correction of the figures submitted by Mr. Johnson in his Exhibit No. 24, does it not? A. Yes, sir.

Q. As I understand it, you do not wish to be understood as committing yourself to the correctness of Mr. Johnson's figures, or to the correctness of the theory that he has adopted, but you have simply corrected the figures where, in your judgment, they stood in need of correction? A. That was my statement, yes, sir.

Q. Did you correct them where they stood in need of correction whether the correctness would result in a reduction of them or an increase of them, or did you correct them only where the correction would result in a reduction of them? A. I think the correction was made to what I deem the proper use of his figures, regardless of whether they would raise or lower the expense.

Q. Well, taking the Northern Pacific Exhibit No. 17, you start off by cutting out of that statement the two and two-thirds months, getting, of course, dif-

ferent totals as the result of that elimination from those shown at the foot of that exhibit for the entire fifteen months. A. Yes, sir.

Q. And getting also a different relation of local train miles to the whole, and of through train miles to the whole, and of branch train miles to the whole. That is correct, is it? A. Yes, sir.

Q. And a different relation of empty car miles to the loaded car miles? A. Yes, sir.

Q. Now, did the difference in the relation of the local train miles to the whole, or of the through train miles to the whole, or of the branch train miles to the whole, make any difference whatsoever with the use which Mr. Johnson made of that exhibit? Was not his only use of it the use made in the first paragraph of the first sheet of 22, for the purpose of ascertaining the ton mileage of empty cars which, by Exhibit No. 17, he had ascertained to be 72.23 per cent of the whole? A. I say no, sir, Mr. Johnson again used that percentage on Sheet No. 3 of his Exhibit No. 22.

Q. He uses which figures again on the third page of Exhibit No. 22? A. The percentage of 72.23.

Q. Precisely. A. Yes, sir.

Q. And the different percentage of empty car mileage to the loaded car mileage is undoubtedly of importance, but that is the only percentage that is corrected there that is of importance, is it not? The relation of local to the whole, through to the whole, and branch line to the whole is made no use of? A. I have to follow that through. I have done considerable work since then, but my recollection of it now is that that is the only point where it touches, but that is one a little further on which I have explained in

my testimony, where I use his figures as corrected on these percentages. That is my recollection of the matter.

Q. Well, now, turning to pages 5 and 6 of your testimony, where you deal with this item. You say: "While Mr. Johnson's Exhibit No. 17 gives us the percentage for fifteen months, I considered the application of these figures for fifteen months, or, to be more exact, fourteen and two-thirds months, as incorrect, as he should apply the twelve months data to the actual twelve months expenses. That is, the data for the fiscal year should have been applied to the expenses for the fiscal year. I have therefore cut out the first three items of Northern Pacific Exhibit No. 17, which gives me the following totals: Number of cars, second column, 4,410; main line and local trains loaded car miles, 178,166. The next column, the same in through trains, 129,648; in branch line trains, 38,-387. Total, 346,201. Empty car miles, main line, total of column, 216,487; branch lines, 30,774. Total, 247,261. This would correct the figures which are shown at the bottom of Northern Pacific Exhibit No. 17. Loaded car miles in local trains, percentage, 51.46; in through trains, 37.45; in branch line trains, 11.09. Empty car miles per cent of loads, 71.42. Shifting, now, to Northern Pacific Exhibit No. 22, third paragraph, first page. It gives us, equated ton miles, 919,213,121." How do you produce that figure? A. Will you please bear with me a minute while I look over my papers?

Q. Yes. (Witness examines papers.) Answer to this question was deferred until later, and will be found at the end of Mr. Hillman's testimony, page 489 of this record.)

Q. At any rate, dividing the equated ton miles which we will assume for the present are 1,919,213,121, as stated on page 6 of your testimony, into the total of $1,465,908.88, you get your cost per ton mile of 1.5926 mills, is that correct? A. I had that figure given in my notes, $1,463,908.88.

Q. I am asking you for the cost per ton mile which you show in the fourth line below that figure, the eleventh line on page 6 of your testimony, as 1.5926 mills. A. My objection was that you quoted 1,465,-908. It should be 1,463,908.

Q. You will see on turning to the exhibit, that it should be $1,465,908.88. A. Then I am mistaken on that. It was read by me 1,463,908.88. On the copy which I had it looked like a "3," and I took it as a "3." It would make a difference of two thousand dollars in that computation, and would raise that figure of 1.5926 per mile. I do not know the exact figures.

Q. I have not figured it out. It would be infinitesimal. A. It would raise it some.

Q. In any aspect of the case, Mr. Hillman, the margin between revenue and total cost and taxes is narrow from any point of view, is it not? A. The final result?

Q. Yes. A. Yes, the final result is a narrow margin. The change would be a slight one. I could not tell just how much, but I am perfectly willing to make the computation.

Q. It would be very slight. But, turning again to the first paragraph of the first page of Northern Pacific Exhibit No. 22. The empty car mileage as corrected by you by eliminating the first three months from Exhibit No. 17, is 71.42, instead of 72.23? A. Yes, sir.

Q. And that would result in what difference between the 1,156 ton miles for empties which Mr. Johnson allows and the figure which you would get? A. What was that figure Mr. Johnson allowed?

Q. 1,156. It is sixteen times 71.43. A. It would make 1,142 miles.

Q. Now, then, adding to that the sixteen hundred loaded car tonnage, and the 2,687, the contents of car tonnage, gives a total of how much? A. 5,429.

Q. Now, then, dividing that 5,429 by the 2,687, gives you what? A. (Witness makes the computation.) 202.05 gross tons for one hundred revenue ton miles.

Q. Call it 202, flat. A. Yes, sir.

Q. That shows, then, that under the correction made as you have made it, it requires 202 gross ton miles with the lignite coal to produce one hundred revenue ton miles? A. Yes, sir.

Q. Well, then, taking the computation made below that, of all freight, that, of course, is correct as it stands, and shows that of that traffic it takes 198½ gross ton miles to produce one hundred revenue ton miles? A. Yes, sir.

Q. The whole point of that computation, as stated in the note underneath it, was to show that it took practically as many gross ton miles to produce one hundred revenue ton miles of coal as it did to produce one hundred revenue ton miles of all freight? A. Yes, sir.

Q. That proposition remains true, and even more than true after the correction is made? A. Yes, sir, that is correct.

Q. So that that correction as to that portion of the

exhibit makes no difference? A. None at all, in the final computation.

Q. Now, you proceed to state, Mr. Hillman, on page 6 of your testimony, after having produced the figure of 1.5926 mills per ton mile, and it is assumed by Mr. Johnson in his exhibit, and assumed provisionally by you in your testimony in your discussion of his exhibit, that the cost per revenue ton mile of coal is the same as the cost per revenue ton mile of all business. You proceed as follows: (Reading from record of former hearing.) "The lignite coal ton miles were, according to Mr. Johnson's Exhibit No. 24, 9,380,678, which, when equated upon what I deem the proper basis of the equation, which is 2.049, and the production of which I will show in a moment, gives us 19,221,009 equated ton miles, which, multiplied by the 1.5926 mills which we have just shown, gives us a mileage (the word "mileage" as here used, was subsequently corrected and changed to the word "cost" in the original record, it being an error) for train transportation expenses of $30,611.38." A. That word mileage should really read "cost" there. I just want to look Mr. Johnson's statement over there. (Looks at paper.)

Q. That $30,611.38 is your correction of Mr. Johnson's figure of $31,146.76? A. Yes, sir.

Q. And the reason why there is any correction is that in equating the ton mileage you use, as a multiplier, 2.049 instead of 2.1, which Mr. Johnson used? A. Yes, sir.

Q. You have a lower equated ton mileage which you multiplied by the cost per ton mile, that is correct, is it? A. Yes, sir.

Q. Now, then, coming to a consideration of how you get that 2.049 as a multiplier. You say, quoting from page six of your testimony (Note: The reference to page of testimony here is to the numbers at the top of each page of the original record, and not to the paging appearing at the bottom, the permanent paging of the sheets.—Reporter.) (Reading.) "We find, in producing the factor 2.049, Northern Pacific Exhibit No. 20 shows the total ton miles on through trains obtained by multiplying the mileage by the average weight of the train as shown upon this exhibit, of 269,656,344 ton miles. That is produced by multiplying 182,694 train miles by 1,476 tons. In the same way, we find that the total weight on way freight was 26,030,790; on branch lines, 29,144,772, showing the percentages as follows: Total for main line through trains 83.01; for way freight main line, 8.01 per cent; branch lines, 8.98 per cent. Mr. Johnson's exhibit, Northern Pacific No. 22, first sheet, third paragraph, shows the actual revenue ton miles carried in each of these classes of trains. Percenting these, it shows that for the year his figures on the main line through trains were 82.57 per cent; on way trains, main line, 8.05 per cent; branch lines, 9.38 per cent. In other words, after deriving his relative cost on the lower ton miles of way and branch line trains, shown on Exhibit No. 20, Mr. Johnson then applies this higher cost which is shown by the lower train mileage carried upon these classes of trains, or these way trains, to the higher percentage of tonnage which he found carried on the way trains for the year, which I consider an error, and which, in correcting, according to the amount shown by the yearly business, would correct his figures shown upon his Exhibit No.

20, cost per one hundred ton miles, main line through freights, 5.21; main line way freights, 13.76; branch line freight trains, 14.84, which would then give us the relative percentage of 100 for main line through freights, 264 for main line way freights, and 285 for branch line freights. Applying these figures to the car miles shown on Exhibit No. 17, would give us a total percentage, when we reduce all of these items to the—you might say to the equated car mile basis of 2.049, proceeding upon the same basis that Mr. Johnson has in his Exhibit No. 22, second paragraph, first page." Now, Mr. Hillman, the figures which Mr. Johnson uses in Exhibit No. 20 for the purpose of producing as a multiplier of the equated ton miles, or 2.1, are the actual figures, are they not? A. For that period, yes, sir. At least I accept it as such. I have not checked it.

Q. You have no reason to question them? A. I have not questioned them.

Q. And they have been assumed by him and by you for the purposes of those criticisms as representative of the year? A. They have been assumed by him as representative of the year. My criticism of them is that they are not representative of the year. That is the point of my criticism, that they are not representative of the year.

Q. Well, what, then, do you take as being representative of the year? A. The figures in paragraph 3.

Q. Paragraph 3 of what page of what exhibit? A. Paragraph 3, N. P. Exhibit No. 22, page 1.

Q. Well, do you contend that these figures in paragraph 3 of the first page of Exhibit No. 22 show that the figures taken by Mr. Johnson in the first paragraph of his Exhibit No. 20, are incorrect for the year?

A. Yes, sir, that is the point of the criticism I have made.

Q. Now, in the first paragraph of Exhibit 20, he is getting at the cost of moving a ton of main line way freight, as compared with a ton of main line through freight, is he not? A. Yes, sir.

Q. And also getting at the cost of moving a ton of branch line freight as compared with main line through freight? A. Yes, sir.

Q. In the third paragraph of the first page of Exhibit No. 22, he gives the actual ton mileage of all three classes, without saying anything at all about the cost, does he not? A. Yes, sir.

Q. The two sets of figures, then, dealing with an entirely distinct question, how can the figures showing the relative ton mileage which is what the figures in the third paragraph of the first page of Exhibit No. 2 show, have anything to do with the cost—relative cost per ton mile as shown in the first paragraph of Exhibit No. 20? A. For the reason that the ultimate object of the third paragraph of Sheet 1, Northern Pacific Exhibit No. 22 is to obtain the equated ton miles upon which the cost is based, and in making up those equated ton miles in the third paragraph, Sheet 1, Northern Pacific Exhibit No. 22, Mr. Johnson has used the cost figures which he derived from his Exhibit No. 20. You will note there he has used the multiple, 267 and 299.

Q. Yes. A. Therefore, the figures of cost represented on Northern Pacific Exhibit No. 20, do enter into the equated ton miles which are the cause of finding the miles on the third paragraph of Sheet 1, Northern Pacific Exhibit No. 22.

Q. And how can the cost as shown on the first

paragraph of Exhibit No. 20 possibly change as a result of anything that is shown in the third paragraph of the first sheet of Exhibit No. 22? That cost is absolute, is it not, as shown in that paragraph of Exhibit No. 20? A. That is the cost, yes, sir, as shown in Exhibit No. 20. It can change it in this respect, that the cost was found upon the basis that 83.01 per cent of the traffic was carried on the main line through trains, according to Exhibit No. 20. When the application is made with the lower cost of main line, as applied, that lower cost is applied to traffic which shows only 83.57 per cent carried on the main line. For the cost, the way freight is shown 8.01 per cent carried on the way freight main line, while the movement to which it is applied is applied to 8.05 per cent carried on the main line. On the branch line the cost is figured on the basis that 8.98 per cent of the traffic was carried on the branch line trains, while the application of that cost is made upon the basis of 9.38 per cent of the traffic being carried upon the branch line trains. In other words, having found the cost from a lower tonnage carried on way trains, both main line and branch line, it is then applied to a heavier tonnage carried on main line and branch line, my claim being that the correction should be made according to the movement to which it is finally applied.

Q. Now, Mr. Hillman, assuming, for the purposes of developing clearly the situation here, that one hundred tons of freight are moved a mile in a main line through train at a cost of one dollar, and that one hundred tons of freight are moved one mile in the main line way freight, at a cost of two dollars, and that one hundred tons of freight are moved one mile on

a branch line train at a cost of three dollars. On that state of facts, it would be exact to say that the cost per ton mile for main line way was double that of main line through, would it not? A. Yes, sir.

Q. And that the cost of branch line was three times that of main line through? A. Yes, sir.

Q. And the entire tonnage of each would be thirty-three and one-third per cent of the whole? A. Yes, sir.

Q. Now, then, that having been ascertained, we also ascertain that for an entire period, covered by this assumed movement, the percentage relation of which changes so that one thousand tons of main line through are moved, two thousand tons of main line way are moved, and two thousand five hundred tons of branch line way moved, and you want to get at the cost of movement. By what authority or right would you say that the cost of movement had changed simply because the relation of percentage of each to the whole had changed? A. For the reason that the cost in the first instance is derived from the amount of tonnage carried on each train for the shorter period covered by Mr. Johnson's Exhibit No. 20, and that therefore the application of those percentages can only be to a period where the tonnages on these trains are constant with the cost figures which he has produced. We will suppose, now, that, as you have given me in the examples, the tonnage on his branch line trains and the way trains had increased, therefore as the tonnage increases the cost of carrying necessarily decreases, and we can not apply a period when the relative movements carried on these trains are used, on the computation of the cost, to a period where heavier tonnage is moved upon the way trains.

Q. Then that assumption is necessarily involved in your change of these figures, that as the tonnage on main line way and branch line trains, or, rather, the percentage of the tonnage to the whole increases, the cost of movement in these classes of trains of necessity decreases? A. Yes, sir, that is the statement of it. I would like to amend that slightly in this way: that the cost decreases according to the tonnage carried on a train.

Q. Well, in making the correction that you have made, you have proceeded to make it because the percentage of tonnage in main line way trains and branch line trains had increased over what it was as shown in the first paragraph of Exhibit No. 20? A. Yes, sir.

Q. And therefore you assume that because it had increased the cost of movement had decreased? A. Yes, sir, the relative cost of movement had decreased.

Q. And how could you ascertain the extent to which it had decreased? A. Simply by the method of applying the percentages which we found above, 83.01 per cent on main line through, and 8.01 per cent on the main line local, and 8.98 per cent on branch line trains, to the percentages which were deduced from the third paragraph of Exhibit 22, first page, of 82.57 on the through trains, 8.05 on the way trains, and 9.38 per cent on the branch line trains. In other words, the relation of your tonnage is changed, and therefore the relation of your cost must change.

Q. Does it change exactly in proportion with the change of percentage of tonnage? A. It would change very closely in proportion, yes, sir. It would not be mathematically exact, but very close.

Q. Does not that involve an element of assumption, there? Is that a universal law that because the per-

centage of tonnage upon a main line way freight to the whole freight movement for a given period is increased over what it was at another given period, therefore the cost of movement must of necessity have decreased? A. The relative cost of movement, yes, sir.

Q. But this is not the relative cost. This is the absolute cost as shown in the Johnson Exhibit No. 20, is it not? A. That is the actual cost for that period, yes, sir.

Q. Yes. A. Yes. Now, you then apply that relative cost to a traffic having a longer period. In order to determine the relative cost of main line through, way main line and branch line trains, you apply that to a period where in the meantime the movement, the amount of all traffic carried on your branch line trains, for instance, had increased from 8.98 to 9.38 per cent, which increase in the percentage carried on the branch line trains would necessarily decrease the relative cost of main line through, main line way and branch line.

Q. Well, Mr. Hillman, for the purpose of bringing your theory to a test, and of making it at the same time a little clearer to me, will you take the supposed example that I have given, of one hundred ton miles of main line through, costing one dollar, one hundred ton miles of main line way, costing two dollars, and one hundred ton miles of branch line costing three dollars, you have then, in that example, one cent per ton mile for the main line through, two cents per ton mile for the main line way, and three cents per ton mile for the branch line. Now, then, you have a longer period, during which the percentage of each movement to the whole is changed. One thousand tons moving as main line through, two thousand tons moving as main line way, and two thousand five hundred tons

moving as branch line. Tell me what was the cost of movement of each during that longer period, and explain how you get at it, and how, and by what right you can say that it was any different from what it was when the percentage of each was thirty-three and one-third per cent of the whole? A. We will first have to correct a little error, or, not an error but what I consider an erroneous supposition in the question. That is, that you have determined the cost per one hundred miles on each of these trains. You have not given me the total tonnage of these trains, upon which that relation or relative cost per one hundred tons was determined. In the second example which you gave me to figure, you asked me to figure a cost per train load. If these figures had been considered originally, the cost would not have been one, two and three. It would have been a different cost. In other words, your main line through cost, if you are only carrying one thousand tons as against your other trains carrying two thousand and two thousand five hundred, would have been greater than the one thousand—

Q. (Interrupting witness.) I don't care what the absolute figures are. Call the first figures one thousand tons in each. Just so they preserve the relation of thirty-three and one-third per cent; and then, so as to make the example simple, we will call the branch line two thousand ton miles, or two hundred thousand ton miles—I don't care what the total of ton miles is that you get, so long as you preserve a given percentage relation. A. We will take, then, Mr. Donnelly —we will take a loading of three hundred tons, since you have chosen one hundred tons in the first instance, on the through trains, one hundred tons on the way trains, and one hundred tons on the branch. We will

still take the one hundred tons for the second example, and preserve the relation which you mentioned at first, of one thousand, two thousand and two thousand five hundred.

Q. You would better call it two thousand. A. I have just preserved that first example.

Q. All right. A. On that basis, to preserve that relation and have three hundred tons on your total loading, you would have only 54.55 tons on your main line through trains. You would have 109.1 tons on your way train, main line, and you would have 136.35 tons on your branch line trains. Now, with those tonnages, your branch line trains are going to cost you less than your main line through, for the reason that you have a heavier tonnage loading on it. The cost per ton accrues according to the loading of your train, and you would not have a percentage of one, two and three, but you would have that percentage almost reversed, and you would have your main line costing you more. Your main line through would cost you more than the local.

Q. But Mr. Hillman, that assumes a change in the loading of the trains, and there is no ground for that assumption. Take the first instance, we will suppose those three hundred tons as distributed in through, way and branch line, moved on a single day. The second instance, the one thousand tons, two thousand tons and two thousand five hundred tons, branch line trains, moved, we will say, in the course of ten days. Now, it is perfectly true that that being so, you would have to assume double the movement in main line way freights each day, but it does not necessarily follow that there would be a different train loading, does it? A. Yes, sir, that is just what I claim it does, and the

point of my criticism is just that it does. Having established this cost for certain train loading, and having reduced that cost to the relative loading on through, way and branch line trains, you can not take that cost and then apply it to a difference percentage carried on those trains without disturbing the true relation between them, because the cost is based on the very fact of the tonnage which is carried on those trains. The moment you disturb the amount of tonnage carried on these trains, in the application of the final cost, you disturb the factors with which you have originally started.

Q. And do I understand that you assume that because there was a larger percentage of branch line movement for the year, and a larger percentage of main line way movement for the year than is shown in Mr. Johnson's Exhibit 20, for the two months, therefore there was, of necessity, a heavier main line way movement for the year than was shown in Mr. Johnson's Exhibit No. 20? A. A heavier movement —a heavier tonnage movement on those trains.

Q. A heavier tonnage movement on those trains, per train. It is conceivable, is it not, Mr. Hillman, that the tonnage movement on these trains might not have increased at all, and that more trains may have been used for the movement of this increased percentage of tonnage? A. For the increased percentage of tonnage of the branch line and main line way?

Q. Yes. A. No, sir, because those trains are not loaded to their capacity. They are very light trains, and the cost accrues because they are light trains, and I do not think it would follow.

Q. Well, then, you think, Mr. Hillman, that if we show a main line movement of one hundred tons, main

line through movement of one hundred tons in one day, and a main line way freight movement of one hundred tons, and a branch line movement of one hundred tons, all in one day, and the next day we show the same main line through movement but a main line way movement of two hundred tons, and a branch line movement of two hundred tons, that it is an inexorable law, that it is absolutely true that you can calculate upon its being true, that that additional tonnage all moved in the same train, and that there was a heavier main line way tonnage per train and a heavier branch line tonnage per train, and that such a contingency is impossible that there should have been two trains for the movement of that two hundred tons main line way, and two trains for the movement of that branch line two hundred tons? A. Practically impossible. From the average loading of the trains, I should say, yes.

Q. It is upon that assumption that you have made that correction? A. Not entirely upon that assumption. The assumption goes a little further than that. That assumption is included in it,—that you did not proportionately increase the way trains. The criticism goes upon the fact that having determined our branch line cost for a day or a period when the tonnage was low, that we are then entitled,—I mean according to the Northern Pacific view of it in this case—to apply that cost as found on the low tonnage, to an increased loading on the branch line trains, for the very reason that this accrues per ton carried, and the moment you increased the number of tons, or the relative number of tons carried in the branch line trains, you disturb the basis upon which your original figures were made.

Q. That assumes that you do increase the number of tons carried in your branch line trains, merely because the percentage of your branch line tonnage to the whole increases? A. That must necessarily be so, as we are using a relative figure here. We are not using the actual cost. We are using a relation between main line through, main line way and branch line.

Q. But, Mr. Hillman, assuming, then, to make the comparison perfectly clear, that these one hundred tons of main line way, and the one hundred tons of branch line, which I have assumed in the first instance, is a loading of those trains, each of them to their full capacity. Of course that is absurd, with these particular tonnages, but the example is the same, and then assume that as in the second instance the main line way tonnage and the branch line tonnage increases in the proportions that I have assumed. You have got to have double your trains, then, in order to move that increased tonnage, and there is no increased tonnage per train, is there? A. No, sir, none on that assumption.

Q. Then, upon that assumption there would be no ground for your making that correction? A. Not on that assumption, no, sir.

Q. You have proceeded upon the assumption that this increased tonnage shown for the longer period was taken up in the trains which moved to carry the lower percentage of tonnage shown in the two months taken in the example? A. Yes, sir, that is the assumption, and I consider it a legitimate assumption. I don't think we are at odds at all on that.

Q. Very well, we will pass that. A. I think I have explained thoroughly the grounds of my doing that, and am willing to rest upon that.

Q. Of course it is purely speculative as to how much the cost would be increased, isn't it? A. No, sir.

Q. Very well. A. No, sir, I do not consider it speculative.

Q. Well, then, Mr. Hillman, assume that that is correct, that gives you your 2.049 for the purposes of equation, as against Mr. Johnson's 2.1, and reduces proportionately the equated ton mileage? A. Yes, sir.

Q. And the application of your cost per ton mile to the reduced equated ton mileage is what gives the last figure of 30,611.38 dollars, as against Mr. Johnson's figure, the first item on his Exhibit N. P. No. 24, of $31,146.76? A. Yes, sir.

Q. But that all proceeds upon the assumption that the cost is the same per ton of lignite coal as for all freight, as Mr. Johnson says in the note at the bottom of the first paragraph of the first sheet of Northern Pacific Exhibit No. 22, doesn't it? A. Yes, sir, it depends upon that basis.

Q. But in fact that very example shows that it is more, does it not? That it is 202, as against 198.5? A. Yes, sir, it shows that.

Q. And 202 is what percentage of 189.05? A. 101.8 per cent.

Q. So that to be absolutely exact your 30,611.38 dollars should be increased to the extent of 1.8 per cent? A. If I had accepted those figures, yes, sir.

Q. But you did accept them provisionally, for the purposes of this criticism, did you not? A. I accepted them provisionally for the reason of Mr. Johnson's foot note on the first paragraph. Otherwise I would have checked his empty mileage up to that point. When he conceded in his Exhibit No. 22 that those figures show practically no difference in the cost of

handling each ton of lignite coal, I accepted that statement. Had that not been made, and this matter gone into and calculated on the basis of 198.5 as against 202 as he had it, I should have checked his percentages of return empty movement. I was willing to concede an equality of movement.

Q. But you had checked the percentage of empty movement and found that it was 71.43, as against 72? A. No, sir, I had not checked his movement. I had simply deducted the 2 2/3 months which he had, and corrected it according to his figures.

Q. Well, at any rate, this Exhibit one, let us understand what it is. It professes to be an acceptance, provisionally, of his figures, does it not? A. Yes, sir.

Q. Well, then, provisionally accepting his figures, your correction ought provisionally to allow all that his figures show, should it not? A. Yes, sir, I should say it should.

Q. Well, then, that being so, you should add 1.8 per cent to the 30,611.38 dollars, shouldn't you? A. Yes, on that basis I should have.

Q. Well, then, will you kindly compute what that is, Mr. Hillman? A. (Witness makes computation.) That amounts to $551.00.

Q. And would bring the total up to what? A. $31,162.00.

Q. Or a trifle more than $31,146.76? A. Yes, sir.

Mr. Donnelly: Well, then, I guess we would better suspend right here.

Adjournment was here taken until 10:00 o'clock A. M., July 3rd, 1912.

Hearing being resumed at 10:00 o'clock, A. M., July 3rd, 1912.

Present the counsel for the State of North Dakota.

Present the counsel for the respective defendant railway companies.

Mr. Hillman on the stand.

The following proceedings were had:

Cross-examination continued.

By Mr. Donnelly:

Q. Mr. Hillman, it was determined by you, or conceded, as I understood you last evening, that the figure on your Exhibit No. 1, first figure, should be, instead of $30,611.38, $31.162.38? A. No, sir, it was on the basis of the proposition which you gave me that we should consider the 202 gross tons to carry one hundred tons of lignite coal, and 198.5 tons of gross per one hundred tons to carry all freight. On that basis the figures which you have mentioned are correct.

Q. Well, now, Mr. Hillman, let us not have any misunderstanding. Your Exhibit No. 1 professes to be a provisional acceptance of Mr. Johnson's theory and a correction of the errors that are contained in that, does it? A. Yes, sir.

Q. Well, then, accepting his theory and his figures, and correcting them where they should be corrected, whether the correction results in an increase or in a decrease it would result in the increase of that figure, would it not? A. If that figure was taken, yes, sir.

Q. It was taken, was it not? If the reverse of that had been true, and the 198.½ was the gross ton miles for lignite coal, and the 202 was for all freight, you would have felt that you could properly reduce his figure to the extent of five hundred odd dollars, wouldn't you? A. Yes, sir.

Q. And if you would reduce it and your purpose

is to correct it, you ought to increase it by that amount, ought you not? A. Yes, sir, on that basis, yes, sir. With the provision that we have already mentioned in my testimony, that I was willing to accept his unit.

Q. Then that is the basis of your Exhibit No. C. W. H. No. 1—a provisional acceptance of his theory and the correction of the mathematical errors in it? A. Yes, sir.

Q. Then my first statement is true, isn't it, that the first figure on your Exhibit No. 1, instead of being 30,611, ought to be 31,162.38? A. Yes, sir, that is my recollection of the figures.

Q. Now, take the next item on Mr. Johnson's Exhibit No. 24. That is the item of switching, for which he gets a total of $4,971.00. You state in your testimony that you allow that to stand. A. Yes, sir.

Q. The next item is station service, and as against Mr. Johnson's figure of $4,182.58, you get a total of $3,237.96? A. Yes, sir.

Q. That is by a correction of what you think was an error in his method of arriving at the station service? That is correct, is it? A. Yes, sir, the station service chargeable to the lignite coal traffic. Yes, sir.

Q. And your figure of $3,237.96 substracted from Mr. Johnson's figure leaves a difference of $944.62, does it not? A. I have not made the computation. I will say yes.

Q. Now, as a matter of fact, upon your statement, C. W. H. No. 2, in arriving at the station service by your method you get a total, taking items 63, 64 and 66 of the transportation expenses, of $4,074.49, do you not? A. 63, 64 and 66, you say?

Q. Yes. A. (Witness makes computation.) For those three items, it would be $4,074.49.

Q. Those items properly fall under the head of station service, do they not? A. With the exception, perhaps, of weighing and car service associations. I do not know how Mr. Johnson classifies it, but I would be willing to classify it under that heading. It is related very closely to station work.

Q. And that is without allowing any proportion of the item of superintendence, or of the item of stationery and printing? A. None of that is allowed, no, sir.

Q. But if you are really seeking to get at what would properly be charged as station service there, and to use that particular item, it would be proper to charge a proportion of superintendence and stationery and printing, would it not, as done by Mr. Johnson? A. Yes, sir, it would be dependent on what view you were going to take of it. You could take that view of it.

Q. You understand that Mr. Johnson pursues a method which ignores the standard classification of those accounts, do you not? A. I understand.

Q. And if you, yourself, were to get at this item of station service, and individualize that account to assign to it every detail of expense which should be properly assignable to that account, you would include, under it, a percentage of the superintendence and stationery and printing, would you not? A. On Mr. Johnson's basis, yes, sir.

Q. So that the actual figure arrived at by Mr. Johnson, of $4,182.58 being only about 108 dollars in excess of the amount which you allow for the three items of station employes, and weighing and car service associations, and station supplies and expenses, is probably somewhere about right if you add to it a percentage of those other two items? Wouldn't you think so? A. (Witness makes a computation.) If those

were added, yes, sir, that would be very close to the result.

Q. Then, taking the next item on Mr. Johnson's Exhibit, Mr. Hillman, repairs to freight cars. That of course you understand includes repairs, renewals and depreciation? A. I understand it, yes, sir.

Q. He gets, for that item, a total of $8,674.04. On your Exhibit No. 1 you get a total of $7,618.80. A difference of about $1,055.24. That is right, is it? A. That is right, yes, sir.

Q. Now, you understand that Mr. Johnson reached his total by charging against the lignite coal traffic a percentage of the—a percentage in excess of the average unit cost of repairs, renewals and depreciation, based upon the fact that the haul in this lignite business was shorter than the average? A. I did not so understand his testimony.

Q. Do you not so understand the first table on Sheet No. 3, of Exhibit No. 22, where he says, at the foot of that table, that it is therefore fair to add 21.8 per cent to the average cost per mile as applied to the lignite business? A. Yes, sir, I understand that perfectly, and that 21.8 is based upon the figures which preceded it in this first paragraph of Sheet No. three.

Q. Yes. And it is to the method of making that computation, to arrive at the 21.8 that I take exception.

Q. Well, it is based upon the fact that there is more switching in connection with the cars in this lignite coal traffic than in all business, that he gets at that excess, is it not? A. No, sir, the calculation is based upon the actual mileage, plus four days free time.

Q. Well, let us get at the question in this way, Mr. Hillman. Let us assume that a car, No. 1, of the

Northern Pacific Railway Company, being spotted down here with Griggs, Cooper & Co., for the purpose of loading, and remains there two days for the purpose of loading, and then, being loaded, it moves from that place across the country to Tacoma, and that at its destination in Tacoma it is spotted, and, at the end of two days, unloaded, and remains at that place two days more, and moves back to St. Paul again, and that is its history throughout the entire year; moving backward and forward from one end of the line to the other. And assume another car, No. 2, which is spotted to Griggs, Cooper & Co., and it remains there the same length of time, the two days allowed, and is then loaded and moves a distance of 79.1 miles, and is then spotted, and at the expiration of two days is unloaded, and at the expiration of two days more, receives its load and moves back again that seventy-one and one-tenth miles, and that is its history throughout the year. And both of the cars are maintained properly during the year. At the end of the year upon which of those two cars would the greater sum of money have been expended for maintenance? A. It would depend, to a very large extent, upon the mileage which those cars had made.

Q. It would not depend at all upon the amount of switching to which each of them had been subjected? A. Yes, sir, it would. There would be an element of switching, which would depend upon the number of times it was handled in the switch-yards, during its trip to the coast and back, for car No. 1, and during its trip of seventy-one miles, for car No. 2. As far as the matter of repairs goes, you will pardon me for a moment while I proceed. I consider that on the basis of mileage. As far as the damage or depreciation goes,

I am perfectly willing to allow the time limit on that if you will understand my testimony upon that point.

Q. I do understand it. A. We are speaking of repairs, distinct from depreciation.

Q. You were speaking of repairs, and you are affirming the proposition of two cars, one moving from one end of the line to the other, and the other moving a distance of seventy-nine miles and back, that the amount necessarily expended for the purpose of keeping each of those cars in repair, up to a normal standard, would be substantially the same. A. Yes, sir, it would be substantially the same. There would be a damage in switching, which would depend upon the number of handlings which that car was subjected to in the yards. That percentage of the damage done by switching to the total is not yet a thoroughly determined factor, though I have some experiments on that point, which have come into my possession.

Q. There would be more switching on the short-haul car, would there not? A. That would be totally impossible to say without following the cars all the time that they were occupied in making the mileage.

Q. Just in proportion to its mileage, would there not be more switching on the short-haul car, of necessity? A. I doubt it very much.

Q. You heard Mr. Elliott's testimony to the effect that there would be greater damage to this equipment by reason of its being devoted to this short-haul service, as compared with the average? A. I heard it, yes, sir.

Q. You disagree with that, do you? A. I do disagree with any statement of that character, no matter by whom made, unless backed by the number of hand-

lings, and so on, that it undergoes in making its mileage.

Q. Have you, yourself, had any experience in the operating department of railroads, Mr. Hillman? A. Some, yes, sir.

Q. What? A. I was for five years and a half with the Cumberland Valley Railway.

Q. In what capacity? A. In almost every capacity from telegraph operator to dispatcher.

Q. Well, just how broad a circuit is that. Your statement is rather indefinite. A. I was telegraph operator, ticket agent, freight agent, yard clerk, weighmaster, car recorder, superintendent's clerk, ran on the road, but that was only incidental to my appointment as train dispatcher. I would say that the disagreement is based, not so much upon practical experience, as it is upon the statement which I have just made that without the consideration of the number of handlings per mileage haul, no man, no matter who he is, can tell how much of the switching is chargeable to the long haul, and how much to the short haul.

Q. Do you not think that an operating official of the Northern Pacific, and the president of the Northern Pacific Railway, is capable of affirming, from his general knowledge of the conditions under which these cars move, that a car the movement of which is only seventy-nine miles, is, of necessity, subjected to more switching than a car the average movement of which is two hundred and twenty-seven miles? A. No, sir, I do not think he is competent to judge unless he has had statistics before him on that subject. I hate to criticise a witness on the other side, but I might as well state the grounds for it. The grounds are that a two hundred and twenty-seven mile haul will require a

certain amount of switching, both initial and terminal switching, with probably a divisional switching in between. The seventy-nine mile haul may involve the same thing. On the other hand, owing to the very fact which is expressed in Exhibit No. 22, Sheet 3, of the detention at the end of runs for loading and unloading, the shorter haul car will necessarily make less mileage and in proportion to the mileage made, it is a question which can only be determined by statistics whether or not, in proportion to the number of miles run, there is the same, or greater, or less switching and handling on the long or the short haul. In the absence of those statistics, I am perfectly willing to state my opinion that no man is competent to give that testimony.

Q. Are you assuming, Mr. Hillman, that Mr. Elliott has had no figures at all upon which he bases his testimony upon this question? A. I believe we asked Mr. Elliott for those figures, and he was unable to give them on cross-examination.

Q. But you know, as a matter of fact, that while he was unable to give definite figures, it is, on every railroad, a question that the operating officials are more or less engaged with all the time, as to the amount of switching that the cars are subjected to in proportion to their haul, is it not? A. Yes, sir. I had one president tell me that ninety per cent of the damage to cars was due to the switching. I had another tell me that fifty per cent was due to this switching, and I had the opinion of another that twenty-two and a fraction per cent of the total repairs to cars was due to damage caused by switching. A variation of that character would seem to make it necessary that we have those figures concerning the damage due to switching before we could make any computation, and besides that we

would have to have the relation of that damage to switching to the mileage which would accrue in a long and short haul.

Q. Well, but, that being a question which, as you say, you recognize that operating officials are more or less occupied with, why do you assume that Mr. Elliott, in answering the question, even though he were not prepared to give an exact figure, did not have such general knowledge to the effect that there was more switching incident to the short haul than the longer, as to equip him to give the testimony he did? A. For the reason I do not believe Mr. Elliott has ever had the statistics on these points laid before him, or is conversant with them. He is speaking from a general idea and not from statistics. That is my opinion and my criticism of his testimony, with which I had not agreed.

Q. Do not be at all sensitive upon the point, Mr. Hillman, for we shall not be upon the point of criticising your testimony. A. All right.

Q. Well, Mr. Hillman, assuming the car moved seventy-nine miles with its four movements at each terminal. That would be eight switch movements in all, would it not? A. On the assumption that it has four movements at each terminal, yes, sir. Eight switch movements.

Q. We will assume that the other car moving two hundred and twenty-seven miles has four movements at each terminal, and two train switching movements at the intermediate division terminal. That would be ten movements. That would give, in the case of the car moving seventy-nine miles, one movement for practically each ten miles hauled, wouldn't it? A. Yes, sir.

Q. And in the case of the other car moving two

hundred and twenty-seven miles, it would give one movement for each twenty-two and seven-tenths miles, would it not? A. Yes.

Q. Well, then, of necessity there would be more movements per mile in the case of the short haul than the long haul, would there? A. There would be, on that basis.

Q. Is there anything wrong with that basis? A. Yes, sir, there is an error in that basis.

Q. What is it? A. The error is that those eight movements on the seventy-nine mile haul occur during one or two days haul, with an intermediate rest to the car at terminals. The other car moves an average of two hundred and twenty-seven miles with the same terminal movement, but in making that movement it travels its two hundred and twenty-seven miles in probably two days.

Q. Mr. Hillman, eliminate the time. There is no assumption of length of time. A. During that time the mileage of this car, it passes more frequently over intermediate switching terminals. It would necessarily increase the number of intermediate switching movements per mile run by the car.

Q. Well, forget all about the time, Mr. Hillman. There is, and has been no element of time introduced in the problem that I have submitted. A. All right, we will omit the element of time, then. Omitting the element of time, we would then have the intermediate switching which has been given by you at two, as practically the only increase for the long haul car.

Q. And the relation that I have stated would, in that case, hold? A. The relation that you have stated would hold, yes, sir.

Q. Now, then, I wish you would explain again what

permits you to introduce that element, and how, by the introduction of that element, you get an increased number of switching movements for the longer time. A. An increased number of switching movements for the long haul, relative, you might say, to the mileage run, which is counted against the car.

Q. Well, but how do you get more than two intermediate switching movements. The four terminal switchings had at each end are absolute, regardless of the haul? A. No, sir, I do not altogether agree with the four terminal movements, but we will assume that they are.

Q. They are as true in one case as in the other. A. We have assumed that they are, yes, sir. Assumed, for this case, that they are correct.

Q. As being as fair to one side as to the other? A. Yes, sir.

Q. Then the only additional switching movement in the case of the long haul, because we are claiming none in the shorter haul as being less than the length of a division, would, as we conceive, be the switching at an intermediate terminal, which we figured at two switching movements. How do you get more than that? A. On your basis I do not get more.

Q. Well, on any basis, how do you get more? A. The way that would figure out would be on the basis of the extra intermediate handlings, that would be all. I have stated that I do not exactly agree with those figures which you have set up, four and two,—four at each end, and two in the middle. I do not exactly agree with them. Outside of that, on that supposition, you would get that.

Q. If we are right in the proposition to any extent, Mr. Hillman, I want from you, and candor on your

part will yield to us, a concession that we are right in the extent to which we are right. Now, if there are no more than two intermediate handlings, those figures are correct as I have given them, are they not? A. Yes, sir.

Q. And if more than two intermediate handlings are to be charged against the long haul traffic, kindly tell me how it is possible to get them, and how many more than two you can figure out. A. The supposition of the two handlings on two hundred and twenty-seven miles is that the car is immediately taken out of the one train and placed on the other, which is not the fact. It is first placed on a switch, and the train is remade, which requires two more intermediate handlings, or at least four at intermediate terminals, getting on the same basis as you started.

Q. Then you would correct our figures by saying that there are twelve switching movements incident to the two hundred and twenty-seven miles, as against eight incident to the seventy-nine miles? A. At least twelve movements, yes, sir.

Q. Well, even that would give a relation of one switching movement every ten miles for the short haul, as against one for every nineteen miles for the long haul, wouldn't it? A. Yes, sir, if you allowed four terminals it would.

Q. It does not make any difference what you allow, because we are allowing the same for the short as for the long haul, and you could make it two terminals, or one terminal, or ten terminal movements, provided you would allow us the same on each. No, sir, it would change your percentage if you did.

Q. I think that is true, but then give us what you would think would be the right figure. We will see

what you would get then. A. I should say that an approximate figure might be considered, of a switching every twenty miles on the short haul, and every thirty miles on the long haul. That is subject to correction according to the handlings, which I have not at my fingers' ends.

Q. Then, that being so, there is still a credit allowable to us as for the excess switching to which these lignite coal cars were subjected, is there not? A. Yes, sir, there would be a credit on that basis.

Q. And you have allowed us none? A. None whatever.

Q. So that to the extent that some ought to be allowed to us out of that, whatever that extent may be in determining it as it may be in your own mind, your figures of $7,618.80 are too low? A. Yes, sir, I should say they are. Of course, when you go into consideration of this kind you have to still go back further, and what is the result of that would be a very difficult figure, because your car repairs assignable to this division are based upon your car miles made. That is, the basis upon which the charge is made to divisions or to states is all on the basis of the car miles made, regardless of the amount of switching which occurs to the cars, so that we have still to go further back.

Q. You could refine the calculation still more, doubtless. A. Yes, sir.

Q. But after carrying it into all its refinements, it is still true that, as there is more switching per mile on a short haul, and as increased switching results in increased expenses for repairs and renewals, and as you have allowed no increase for repairs and renewals, that figure would be, to some extent, too low? A. Yes,

sir, to whatever extent the damages sustained in switching is of the total of your car repairs.

Q. And we do not know how much that is, but we know that it is some? A. That it is something, yes, sir.

Q. Now, then, your next item is maintenance of way and structures. Mr. Johnson gets, for the item a total of $7,119.93. In your testimony you say that you allow that figure to stand, and you reproduce it on your Exhibit C. W. H. No. 1. As a matter of fact, on your Exhibit No. 2, pursuing your own method of allocating to the coal the expenses properly chargeable against it, you get, for the corresponding item, a total of $9,213.22. A. In that there are certain items which really do not accrue on the same basis as Mr. Johnson's figures, because there are items in there which do not refer to the maintenance accounts, exactly.

Q. I understand that you pursue a different method, and I am not criticising you for not assigning those figures, because at the outset you state that you pursue a different method. A. Yes, sir.

Q. But yet, as a result of the application of your method, there would be chargeable against that item some two thousand dollars more than Mr. Johnson has charged against it? A. Yes, sir.

Q. Then, the next item, Mr. Johnson allows a total of $2,688.26, which he gets as the revenue proportion for loss and damage traffic and general expenses. You take the same proportion which he takes, but you take it only of the traffic expense and general expense items, eliminating the loss and damage item, and the difference between your figures, or $1,456.14, and Mr. John-

son's figures, $2,688.26, is due entirely to the elmination of the Loss and Damage? A. Yes, sir.

Q. And you eliminated that, as I understood you in your testimony, because of the fact that we have not ascertained that there were in fact any claims paid during that year on account of the loss or damage to coal? A. Yes, sir, I further made the statement, if I recall my testimony, that if any was paid it was a legitimate addition to these expenses.

Q. And so if an expense could be shown, say, of sixty thousand dollars for loss and damage to coal, which would be more than the entire revenue during the year, you would think that it would be a proper method to pursue in determining whether the given rates are or are not confiscatory, to charge for the item of Loss and Damage, the total which happened because of some special contingency to be chargeable against it for the particular year? A. I would say, in that regard, yes, but I would qualify it. There are frequently accidents which happen which are entirely extraordinary in their character, entailing heavy loss both of loss and damage to freight and otherwise. It sometimes happens in some catastrophe that the expenses in any year are abnormal, and with that exception I will say, yes.

Q. Well, then, because of the fact that it does so sometimes happen, wouldn't a fairer method of ascertaining the amount properly chargeable against that item of Loss and Damage, be one which would separate it in some such way as Mr. Johnson has adopted? A. Yes, sir. According to the class of freight, yes, sir, but some classes of freight are much more liable to damage than others.

Q. Then, Mr. Hillman, do you affirm the proposition

that it is only those items that are subject to loss or damage, or only in proportion as they are subject to loss or damage, that a charge of that description is allowable against them? A. Yes, sir, based upon statistics of different classes, you understand.

Q. Now, assume, for instance, that a collision occurs in North Dakota between a train consisting entirely of coal—it does not move in train loads up there, but we will assume that—and another train consisting entirely of silk, and the collision is due to the negligence of the employes on the coal train, and would not have occurred but for the presence of that train on the tracks and the damage is done to the silk, but none to the coal, and no claims against us are made on account of the coal, would you think that the coal traffic is in no way chargeable with any expense in connection with that catastrophe? A. I would not charge it with any.

Q. You would not? A. No, sir. I recognize that it is a very neat ethical question, the one involved in that point.

Q. But at any rate, from the concession which you have already made, you do not contend, as I understand it, that lignite coal is not susceptible of loss or damage? A. Not to any great extent. If you wish an explanation I will go into it, or leave the answer.

Q. But if you were assured that in point of fact claims had been made and paid by the Northern Pacific, with the opportunity of verifying that statement by an examination of the claim records, you would recognize that as it would not be proper to charge, in this case, a loss of sixty thousand dollars if, in point of fact, so large a one had been sustained, and so large a claim had been paid, so, on the other hand, it would be

proper to allow something if, in point of fact, coal claims are made against the company from time to time, and are paid? A. I have already stated in the direct testimony, that any such allocation of expense could be considered.

Q. And the mere circumstance that none were made or paid during this particular year would not be a reason for denying to that item, any charge at all, or any allowance at all? A. No, sir, we would have to make an allowance for it if it had been subject, in previous years, to a large amount. In that case I think we would have to make some allowance. I have followed that same basis on the Louisville & Nashville, where they had a very heavy expense in one year in the storm on the Gulf that destroyed Galveston. It had not occurred during the year which we had examined, but it had occurred a short time prior, and something was allowed.

Q. But your idea is that the amount chargeable is not a percentage amount, but only that amount which can be directly allocated against the coal because of the coal claims having been paid? A. Yes, sir.

Q. And to the extent to which they had been paid? A. Yes, sir, for the reasons which I have stated, which are peculiar to the coal traffic.

Q. Well, then, I understand you to concede that if claims had been paid, this last item ought to be increased to some extent? A. I have already made that statement, yes, sir.

Q. Now, you show, in your statement, at the foot of Exhibit No. 1, a profit of $1,495.71. A. $1,493 it should be. We corrected that number before.

Q. That has been reduced by this figure of five hundred and fifty-one dollars, leaving how much? A. If

we deduct five hundred and fifty-one dollars from that we would have—I don't know the exact sum.

Q. Even money? A. $942.71.

Q. You say "if we deduct it." We should deduct it, should we not? A. Yes, according to your basis, yes, sir.

Q. According to your own basis on this statement, Mr. Hillman, which is a mathematical correction of those figures. A. All right. I agree to that with the reservation I have already made, of accepting Mr. Johnson's foot-note of equality between the traffic in lieu of an investigation of the facts.

Q. Well, now, I don't want any reservation there. It professes to be a correction of his figures, and correcting his figures as you assume to do, and you say you would have to reduce them by that amount if it had been the other way, you should increase them by this amount, it being this way, is not that correct? A. I will allow that on that basis, yes, sir.

Q. And that is the correct basis, then, is it not? Now, be perfectly frank about it, in your statement of what Exhibit C. W. H. is. A. Yes, sir.

Q. So that leaves $942.71 to be still further reduced by the indeterminate amount which the figure charged for repairs to freight cars should be increased by, and the indeterminate amount properly allowable for loss and damage? A. Yes, sir.

Q. And apart from that, it appears that while the station service item here is allowed on your Exhibit C. W. H. No. 1, as $3,237.96, you actually allow, on your Exhibit No. 2, nearly a thousand dollars more, and you allow on your Exhibit C. W. H. No. 2, more than two thousand dollars more for the item of Maintenance of Way and Structures, than is allowed by

you on your Exhibit C. W. H. No. 1 for that item. A. Yes, sir, we are now coming to the same basis, though, to which you objected that I consider in Line No. 1, of this exhibit, in comparing my methods with Mr. Johnson's. With that reservation, I will say yes sir.

Q. I am not saying that the item as to those figures should not be as you have them on the Exhibit, but I am stating that that is the fact. A. Yes, sir.

Q. Now, coming to your own exhibit. Without attempting to follow through your allocation to freight of the total charge under each primary account, and without attempting to follow your allocation to the item of coal its proportion of each primary account, I want to ask you just a few general questions. The amounts chargeable against coal under several of the primary accounts are less than what they would otherwise be because of the fact that you have held, or considered, that of the company material moved in North Dakota, and the cost of the movement of which is, of course, included in the freight operating expenses, a certain proportion was for the passenger service, and therefore you have taken 4.4 per cent of the charges and assigned it to the passenger account. Is that so? A. Yes, sir.

Q. So that, if this were a passenger case, the amount of passenger operating expenses would be increased from the amount left after the deduction of the freight ascertained here, by the extent of the allowances of 4.4 per cent here made? A. Yes, sir, without any addition to the regular division between freight and passenger. We would then, on all items where freight had been charged with the carriage of

passenger material, charge that amount to the passenger service, and, I think, properly.

Q. Now, it is undoubtedly true that some of this company material was for passenger service, but it is also undoubtedly true, is it not, that a considerable portion or at least some proportion of the passenger expenses for the movement of employes, or movement of construction crews, movement of men engaged in such work as Maintenance of Way and Structures, would be a proper charge against the freight movement, would it not? A. I consider that as a proper charge against the freight account for such items as would increase. We will take the passenger accommodations necessary for the handling of a freight man on a passenger train. The train is already made up, and I would not charge anything. But in the case of official cars, or where you have to move on a passenger schedule, as you say, construction crews or maintenance of way crews for special service or special purposes, there should be an allowance made when moved on a special schedule. That allowance has been made by me in other cases, and is a very inconsiderable item, I should say five-hundredths of one per cent would cover it. To whatever extent that may be freight, has not been charged in this case, as I did not go into that computation.

Q. Well, you say that the freight should be charged with the expense of the movement of individuals in passenger trains when additional service is made necessary for their movement? A. Yes, sir.

Q. Is the converse of that true, or have you considered it true in your calculation, that this charge against the passenger service was made only when additional

freight equipment was necessary for this movement? A. Practically, yes, sir. For these reasons, if you will allow me to explain, that the freight movement is in carload lots, and is in weight, you might say, and necessitates extra engine power and extra car accommodations while it is being hauled. The exception I made to the passenger was that when a freight crew, dead-heading down to a run, is placed on board a passenger train, it is true that their weight would add to my passenger weights on the train an average of one hundred and fifty pounds to the man that got on there, and would, to that small extent, increase my passenger weight; but the life weight on a passenger train is so small, and that is such an infinitesimal fraction of that live weight, that it is negligible. Or, similarly, when you send a special car out with the general manager. He is not looking after the passenger business, though the passenger business has to stand the entire cost of hauling his special car, or the special train, if it is a special train. It should be, of course, based upon the expenses which he supervises, the same as general expenses, to whatever class of movement it belongs or applies. That has not been taken into consideration in this exhibit or on this point.

Q. And to the extent that it ought to be taken into consideration, it would probably be infinitesimal in this total, while the total of charges shown on your Exhibit No. 2 ought to be increased. A. It would increase, I should say, roughly, about five one-hundredths of one per cent on my freight business, and naturally would increase my coal expenses to the same extent.

Q. Well, now, getting, Mr. Hillman, at the relation of the cost of way freights to through freights. You

reject the relation which Mr. Johnson gets from his calculations, on Page 42 of your testimony. (Note: Reference is made to page number at the top of sheets composing original record, not the final page numbers appearing at the bottom.) You reject the relation that Mr. Johnson gets from his figures on Exhibit No. 20, and you say: (Reading from record.) "The expenses of our way freights are based upon the fact that owing to our peddling car we have an extra brakeman, and an allowance is made to the men for way runs which is based upon the fact that they are running on a way train, and the definition of a way train and the distinction which is drawn between the men when they receive extra compensation, is that they are running on this train which carries the peddling car. Outside of that basis there is no distinction between a way train covering mileage on the main line and any other train on the main line. There is no extra wages paid, as can be readily shown by investigation of the schedule of wages." In order to equip yourself in order to make that statement, you investigated the schedule of wages? A. I did not personally, no, sir. I had it looked up. I would say that that is not strictly correct, for the reason that your enginemen are paid on the class of engine that they handle. There is a distinction there, according to the class of engines and also that on certain trains which you might call intermediate freights, that is, pick-up and set-up trains, there is a shorter mileage frequently accruing on these trains than does on the distinctly through trains from initial division points to the final division point. Those trains, outside of that, which are over a division, are considered as through trains.

Q. Are you speaking now of what the schedule for trainmen provides? A. Yes, sir.

Q. You are speaking without having, yourself, examined it? A. I had it examined by my men. I did not make personal investigation.

Q. I assure you, if you will accept my assurances without it being necessary to put a witness on the stand. A. I think we can.

Q. I assure that this is a schedule for trainmen, and call your attention to Article 4, on Page 8, and ask you if, after reading that article, you wish to qualify the statement which I have read from your testimony. (Hands paper to witness.) A. (Witness examines paper.) No, sir, I do not.

Q. Well, according to that statement, the freight crews setting out and picking up cars at stations are treated as way freight crews, are they not? A. Yes, sir. Please read the last clause at the same time, in connection with this. Read the second.

Q. There are other classes, there is no question about that. A. I mean read the last clause in connection with the paragraph you have read.

Q. (Reading.) "Or the loading or unloading of freight at not more than two points en route." A. I meant the entire paragraph—the entire last paragraph.

Q. Read into the record, yourself, whatever you think ought to go in. A. (Witness reads.) "Rule 1: Local freight service: Local freights are trains whose work is the loading and unloading of freight and doing switching en route. Crews on local freight trains will be paid as follows: (Omitting part.) One hundred miles or less, ten hours or less to constitute a day. Overtime pro rata. This rule does not apply to either freight trains setting out or picking up cars

at stations, or loading or unloading of freight at not more than two points en route."

Q. Mr. Hillman, do you not understand from the statement that you have read that any freight is treated as a local freight which either is engaged in the work of loading and unloading of freight, or doing station switching en route? A. Yes, sir, they are doing station switching. The station switching is assignable to way freight trains, and they do the bulk of the switching.

Q. So that, regardless of the presence of the peddler car in the train, they would get this increased wages if they did the station switching en route. A. If they were sent to do the station switching en route, yes, sir.

Q. Now, the last paragraph which says that the rule does not apply to either freight crews setting out or picking up cars at stations, or loading and unloading of freight at not more than two points en route, that refers to the through freights, does it not? A. Yes, sir.

Q. And if a through train does do loading or unloading of freight at more than two points, its crew gets these wages, does it not? A. I suppose they would, yes, sir.

Q. Yes, and so, that being true, and the through freight crew getting these wages where they do that kind of work, it increases the cost per ton mile for through freights, and makes a more favorable relation to the state in this case than the relation would be if the through freight crews got the lower schedule of rates in all instances, isn't that true? A. Yes, sir, that would be the fact if there was any such item.

Q. That being true, then, and it being borne in

mind that Mr. Johnson, in his Exhibit, makes no claim at all for switching service for these way freight trains that do the switching en route, it is necessarily true, is it not, that your statement is too broad in absolutely eliminating the excess charge for main line way freights when it is apparent that that extra charge may be produced either by the presence of the peddler car on the train, or by the fact that the way train does station switching? A. Yes, sir, on that basis, that you stated, yes, sir. But we have got to come back to this statement, then, as to what trains you have which would class as way trains, and what trains we have which would class as through trains. We have not got that information, and we did not know whether in his figures, those trains that we may call intermediate between through and local trains, were all taken as through trains or not. We have taken it that they were all taken as through trains, outside of the schedule train, which is called a way train.

Q. But Mr. Johnson says that he has taken as way trains those which were actually scheduled as way trains, other trains treated as through trains. That is what you have assumed. A .Yes, sir, that is what I assumed in getting at this amount.

Q. It necessarily follows, then, that you have also assumed that each way train scheduled as a way train carried a peddler car? A. It certainly carried the peddling car, and its excess cost is due to the fact that it is a way train.

Q. But isn't it due to switching, to any extent, too? A. Yes, it does switching on the road.

Q. It is mostly switching on the main line, isn't it, the excess time that is consumed in moving over the road. A. No, sir, I should say it was not.

Q. At the larger stations they have regular freight handlers that relieve the employes of the train of the work of loading and unloading less than carload shipments? A. They relieve the crew, but there is on these way freights a special provision for unloading. While they are unloading, the regular engine crew do the switching, and they are ready to go on by the time they have the freight unloaded.

Q. That is the bulk of the expense, isn't it, switching? A. No, sir.

Q. It is a considerable part of it? A. It is an expense, there is no question about it, but if that is done without the unloading and handling of the way car, you then would not have a way train. It would be on your schedule, and the men would now draw way-train wages.

Q. It takes a crew of four men to do the switching, does it not? A. The engineer, fireman and two brakemen, yes, sir.

Q. Their time is devoted absolutely to that while they are doing it? A. No, they have an extra brakeman on these trains.

Q. Those men that are doing that switching? A. Yes, sir.

Q. So that certainly a very considerable part of the expense of the way train movement is the switching? A. I do not consider it so, no, sir.

Q. You do not consider it so? A. No, sir.

Q. You consider that the excess expense is all due to the peddling car? A. Practically all due to the peddling car, yes, sir, which makes the way train.

Q. Well, some expense is due to switching, isn't it? Or is switching accomplished without any expense all? A. Certainly switching has to be done. You

cannot make a movement on a railroad without, theoretically, some expense. There is no question on that point, but the point of the matter lies in this: That is making up these expenses of the way freight trains, Mr. Johnson has considered schedule way freight as he stated; that in the scheduled way freight, the excess is paid because it is a way freight. If the peddling car was removed from that train, and we had none of that business at all done by the peddling car, and the train was simply going along setting off and picking up cars without having their extra brakeman on, they would not have the expense of that class, according to the last clause, or the last section of that clause.

Q. You make that statement in the face of the statement in the first paragraph, there, to the effect that local freights are trains whose work is the loading and unloading of freight, or doing switching en route, whether they have the peddling car or not. They are local freights, and their crews get local freight wages if they do that. A. My claim is simply this; that if they were set up on the basis of no peddling car on the train, that would not hold, and the men would not get the excess wages, nor would the extra brakeman be put on.

Q. Well, at any rate, to the extent that the expense is chargeable, the extra expense is chargeable to the switching accomplished by one of these trains, there ought to be some allowance for cost in excess of the through trains that do not do it, ought there not? A. As you worded your question, yes, sir. You have worded it as to the through trains which do not do it.

Q. Well, ought there not to be some allowance per

train mile over the cost as shown per train mile for main line through freights in Mr. Johnson's Exhibit No. 20? A. I think not, from the classification that Mr. Johnson has made of the expense. From the way he has classified his trains, I think not.

Q. You charge the entire expense—additional expense—then, to the presence of the peddling car? A. I think so, yes, sir. That is my opinion.

Q. Well, if that is so, where do you make any allowance for the expense of switching these coal cars at stations other than terminals? A. The switching of the coal cars and of the cars is not confined exclusively, we must recall, to the train which Mr. Johnson has classified as way trains. He has classified all outside of the scehduled way trains as through trains. Those freights do set out and pick up cars en route, and they do perform switching service, and therefore, in his 76.5 cents, which he has allowed on his through train cost, is included the cost also of picking up and setting out cars and switching. That entering into the cost of, or into the calculation of, his cost of what he has called his through trains, which are not necessarily from terminal to terminal according to the way they are classified, covers, to my mind, the extra expense to which the way train will be put on account of the switching which it does.

Q. Do you think, Mr. Hillman, that in the 76.5 cents which you allowed the main line way freights, there is included the cost of switching, intermediate switching? A. I consider that it includes station cost, and the switching that would be done by those trains, were the way car eliminated.

Q. If you cut out the cost of switching from your 76.5, you would have a lower figure in your main

line through freights, would you not? A. I do not know as you would have a lower cost per train. If you cut it out you necessarily cut out those trains which do the switching. You mean, have a lower cost per ton?

Q. Yes. A. Sure you would. There is no question about that. None whatever!

Q. Yes. And reducing the cost per one hundred ton miles of those main line through trains, you would necessarily increase the relation which the main line way sustained per one hundred ton miles? A. Yes, sir, we would, if we were considering it on the basis of the terminal trains, we would inject a fourth proposition, which would be the drag trains, pick-ups and set-offs.

Q. Ought not the relation as shown on Exhibit No. 20 to be changed by the elimination of the cost of switching from the main line through? A. No, sir. Not without the interposition of what I have termed our intermediate freight trains, pick-ups and set-outs, which have been included by Mr. Johnson in freights other than those scheduled as way. He has classified all of those as through trains.

Q. Are you not assuming that he has classified them as through trains? A. According to his statement he has taken way trains as scheduled way. The other trains are necessarily through trains. Outside of that, if he has not done that, he has omitted a large portion of his trains in the computation, entirely. Taking the heavy through trains, he has omitted the intermediate freights, and compared that with the way trains, if he has not done as I have intimated.

Q. Mr. Hillman, you say that the 76.5 cents cost per train mile shown in Johnson's Exhibit No. 20 for

main line through freights, includes the cost of those intermediate switching movements? A. Yes, sir, outside of what is done by the way trains.

Q. Some is done by the way trains? A. Certainly.

Q. And if that cost of switching that is done by the through trains, which includes these trains other than those scheduled as way trains, were to be cut out, the cost per mile would be less than 76.5, certainly, wouldn't it? A. It would, yes, sir.

Q. And the cost per one hundred ton miles would be less than the figures which are arrived at here? A. I think I am safe in saying so.

Q. And the relation of the cost per ton mile of main line way freights to the cost per ton mile of main line through would necessarily be greater from the fact of that reduction, wouldn't it? A. Yes, sir, on through trains. We are now omitting from consideration, entirely, intermediate trains, as I understand it?

Q. Well, the intermediate trains are included in the through? A. Yes, sir.

Q. All trains other than those scheduled as way trains are included? A. Yes, sir.

Q. And that is what Mr. Johnson has done on Exhibit No. 20? A. Yes, sir, that is what I understand.

Q. Therefore, the relation of the cost of way to through would be greater with the switching cost eliminated from the through, wouldn't it? A. Yes, sir. Do you mean leaving out your switching also in the way trains?

Q. Yes. A. All right. Yes, sir, it certainly would.

Q. Then that ought to be done in order to get at a correct relation, should it not? A. Unless you con-

sider that you can leave out the switching which is done by the through trains, or trains outside of the local. You cannot leave that out of the computation entirely. That would be invidious, to cut it out on the one and count it in on the other.

Q. That relation is as it is, and as you determine it to be, because the cost of switching is included in this main line through cost? A. Yes, sir.

Q. The percentage of way to through would be greater if that cost were eliminated? A. Yes, sir, and still retained in my way freight.

Q. In your way freight? A. Yes, sir.

Q. The way freight proportion of it—the way freight switching that was actually done by way freight trains. A. Letting the way freights stand as they are now, and eliminating the switching entirely from the through, it would show that the relative cost of the way freight was higher than it stands on Mr. Johnson's Exhibit No. 20.

Q. And the cost is, as it stands now, in the main line through cost,—there was switching done by some of these trains, and it would be less if the switching had not been done by them? A. Yes, sir, that is right.

It being noon, recess was here taken until 2:00 o'clock P. M.

The hearing having been resumed at 2:00 o'clock P. M., pursuant to recess taken.

Present the attorneys for the state of North Dakota.

Present the counsel for the respective defendant railway companies.

MR. HILLMAN

on the stand.

CROSS-EXAMINATION CONTINUED.

By Mr. Donnelly:

Q. Mr. Hillman, as I understand you now, it is your contention that the 76.5 cents cost per train mile for main line through covers all of the intermediate switching that may have been done by trains classed by Mr. Johnson as main line through? A. Yes, sir.

Q. And that the 76.5 cents which you allow as the cost per train mile for main line way, independently of the peddling car, covers the cost of whatever intermediate switching may have been done by the main line way? A. Yes, it covers the cost which would have been entailed upon the way trains had the peddling car not been included in its equipment. I think that makes it as plain as I can make it.

Q. Do you know what proportion of the intermediate switching is done by main line through trains, and what proportion of the intermediate switching is done by main line way? A. I do not know, sir.

Q. Well, unless they did each an equal proportion, there would be some difference in their cost, wouldn't there? A. There would in the actual cost of switching. There would be no less cost, however, or more cost to the way train.

Q. Assume that train No. 1 moves from point A, a distance of one hundred miles, to point B, and in the course of that movement makes one switching movement, and assuming that train No. 2 moves from point A, a distance of one hundred miles to the same point, B, and in the course of that movement

makes ten switching movements. Which of those trains would cost the more per train mile? A. The one that made the ten switching movements, in so far as the expenditure of fuel goes. Nothing more.

Q. Which would cost the more per train mile? A. The train No. 2, which made ten switching movements, by the amount of fuel expended.

Q. Which would cost the more per train mile? Answer that question directly, if you please. I am not asking how much. Which would cost the more per train mile? A. The train No. 2.

Q. Then if, in point of fact, the main line way freights performed ninety per cent of the intermediate switching as against ten per cent for the main line through freights, which would cost the more per train mile? A. The way freights, as I said before, by the amount of fuel expended.

Q. I do not know, I think you have have said which of the two did perform the intermediate switching. A. No, sir, I did not.

Q. Then, not knowing which of the two performed most of the intermediate switching, you are placing the two of them upon a plane of exact equality, as you have done by assuming the same cost for main line way as for main line through, your so doing would be an assumption, would it not? A. I would call it a deduction, rather than an assumption.

Q. A deduction? It is a subtraction, certainly, but a deduction from what? A. I mean deduced, not subtracted.

Q. Logically deduced? A. Yes, sir.

Q. From what? A. From the fact of the method of handling way freight trains. The way train goes out to do the switching, and handles a peddling car

that is to load or unload freight. As soon as your car is loaded or unloaded, the local car, the balance of the switching which may be performed at that station is left and the train goes on. It does not stop to perform the switching. That is left, and the train passes on to the next point. The switching is incidental to the delay to this train for the loading and unloading of carload freight. That is the basis of the deduction that I have made.

Q. You have already testified, Mr. Hillman, that if the main line way performed ninety per cent of the intermediate switching, as against ten per cent by the main line through, the main line way cost per mile would be in excess of the main line through cost per mile, to the extent of the fuel? A. Yes, sir.

Q. Could you give an estimate of how much that would be? What percentage of your cost—of the whole cost per mile? A. Not on any data that I have in this case.

Q. Could you give an approximation? A. I could not, not without comparing papers which I have not at hand, and considering details.

Q. Now, I want to call your attention to Page 43 of your testimony, Mr. Hillman. (See previous notes as to page references.) On Page 43 and 44 you explain the method by which you reduce the relation of main line way to main line through, from 267, as stated by Mr. Johnson in his Exhibit No. 20, to 219, as determined by you, do you not? A. Yes, sir.

Q. And that change is all accomplished by treating the cost per train mile of main line way the same as the cost per train mile of main line through? A. Yes, sir, for the purposes of this exhibit. In other words, it is charging the less than carload freight

with the extra cost. The reduction is made by that method.

Q. But that is the way you get the 219, as distinguished from 267 obtained by Mr. Johnson, by reducing the cost per main line way train mile? A. Yes, sir.

Q. Now, you then go on to get at the relation of the branch line freight to the main line through and you reduce that from 299 as determined by Mr. Johnson in his Exhibit No. 20, to 275, do you not? A. Yes, sir.

Q. And by using those two figures for equating purposes, namely 219 and 275, as distinguished from 267 and 299 obtained by Mr. Johnson, you get an equated ton mile percentage to be charged to lignite coal as expressed at the bottom of Page 44, of 1.9202? A. Yes, sir.

Q. That percentage is reached by using, for equating purposes, the figure 1.81 as distinguished from the 2.10 used by Mr. Johnson? A. Yes, sir.

Q. And you get a lesser number of equated ton miles of coal, which lesser number is 16,979,027, than Mr. Johnson's equated ton miles of coal, namely, 19,699,644, simply because you have reduced those relations of main line way and of branch line, to main line through in the manner described? A. Yes, sir.

Q. Now, you state that you reduced the relation of branch line to main line through, and this statement occurs on Page 43 of your testimony, because you say that of the branch line, the 72,143 train miles mentioned includes only three-fourths of the mixed train mileage, and, as far as you could tell from the figures you had, there should be added to this mileage,

5,924 miles for the extra one-fourth, or omitted one-fourth of the mixed train mileage. It was in that way that you accomplished the reduction from 299 to 275, was it not? A. Yes, sir.

Q. Now, but, Mr. Johnson testified on the stand that the charges for the mixed train mileage included only seventy-five per cent of the charges, and therefore that twenty-five per cent should be cut out of the charges increased, shouldn't they? A. I guess he did testify to that. I do not recall, but I think it was on re-direct, was it not?

Q. Yes, your figures were probably made up before he testified? A. Yes, sir.

Q. Now, in view of that testimony, that alteration ought not to be made, ought it, Mr. Hillman? A. Yes, sir, it should.

Q. Explain why. A. For the reason that on the branch line cost, while the cost has been reduced to the freight train mile basis by the use of the percentage of twenty-five per cent, that change preserves the relation per mile for the freight. The four hundred and four tons are then divided into this cost, but in doing so we get an extra reduction in that regard, for the reason that in spite of the fact that only three-fourths of the train is charged and three-fourths of the mileage of the train is counted, yet those four hundred and four tons made the entire mileage, traversed by the train, whether it was considered on the three-fourths basis—no matter whether it was considered on the three-fourths basis or not, those tons made the mileage that the train moved.

Q. So you prepared this on the assumption that the entire cost was taken, and these tables were prepared by you when the hearing began, last time, or

you had them prepared at the commencement of the last hearing? A. Yes, sir.

Q. And they were prepared on the assumption that the entire cost was taken, and it was not until Mr. Johnson testified, on re-direct examination, that you learned that that was not so? A. No, sir.

Q. Didn't you just say so? A. Yes, at that time I took the cost shown by Mr. Johnson as the cost of the branch line train, at $45,129.62.

Q. As being the entire cost? A. As being the entire freight cost, yes, sir.

Q. So that it makes no difference in your calculation and your figures are right whether it is the entire train cost, or seventy-five per cent, or thirty per cent, or two per cent of the figures? A. In the method which I have handled it, as shown on Page 43, I should say it is correct as I have stated.

Q. It makes no difference what proportion of the entire cost this figure represents? A. No, I would handle it in the same way no matter what proportion it represented. That is plain, if you will read the testimony as to the reason of that. Your average loading of freight in the train is 404 tons. Now, that tonnage does not make 72,143 miles. It makes 72,143 miles plus the allowance which has been taken as the passenger proportion of that train. The tons have got to move the number of miles the train does, not the number of miles assigned to the freight service; therefore, when you reduce it to a ton mile basis, the calculation is correct as I have stated.

Q. Mr. Hillman. A. Yes, sir.

Q. You increase your mileage 5,924 by using the twenty-five per cent of the mixed train mileage, do you not? A. Yes, sir.

Q. Giving you, as you state on Page 43, 78,117 as the train mileage? A. Yes, sir.

Q. You multiply that by 404, which gives you the ton mileage of 31,559,268, do you not? A. Yes, sir.

Q. You divide that into $45,129.62, do you not? A. Certainly.

Q. And you get, as a result, $14.30, which, you say, is 2.75 times the 5.21. A. Yes, sir.

Q. If the figure of 45,129.62 were greater, your quotient would be greater than 14.30, would it not? A. Yes.

Q. And it would be a greater percentage of 5.21, wouldn't it? A. Yes, sir.

Q. And the relation, instead of being 2.75, which you have taken, would be more than 2.75? A. It would be, yes, sir.

Q. Then, why isn't it proper that it should be more? A. For the reason that you have a certain cost which we have not disputed, as assigned to the freight business of that train. We are now reducing the freight business of that train to a per ton per mile. This 404 tons did not travel 72,143 miles. It travels 78,117 miles, and I cannot take one-fourth of my mileage that my trains traveled, and divide into the freight expense. I have got to take the full number of train miles.

Q. But Mr. Johnson has testified that this $45,129.62 does not represent the full cost, and that if he had taken the full cost it would be more than that, to the extent of twenty-five per cent of the cost of the mixed train mileage. Now, then, if that twenty-five per cent is to be added to the ton mileage, should it not be added to the cost? A. No, sir, for in that case

my ton miles would be carrying all the expense of the passenger proportion of that train. There would be nothing left to be charged to passenger. All charged to freight.

Q. Do you know how the four hundred and four tons shown as the average gross train load on Exhibit 20 was obtained by Mr. Johnson? A. I do not know. I suppose—

Q. Do you know? I don't care what you suppose. A. I do not.

Q. Mr. Hillman, you ascertained your gross ton mileage by multiplying this 72,143, increased by twenty-five per cent, yielding you 78,117 train miles, by four hundred and four. A. Yes, sir.

Q. Now, that gives you 31,559,208? A. Yes, sir.

Q. Now, does it necessarily follow that that figure multiplied by four hundred and four is the gross ton mileage? A. Yes, sir, that would be correct.

Q. It would depend upon how the figure four hundred and four was obtained, would it not? A. Yes, sir, it would.

Q. If, in point of fact, the actual gross ton mileage was 49,117,608, and it was divided into $45,129.62, which includes only seventy-five per cent of the mixed, what figure would you get? A. (Witness makes computation.) Approximately 15.5.

Q. 15.5 cents? A. Yes, sir, that is the figure shown by Mr. Johnson on his Exhibit No. 20.

Q. Now, wouldn't that suggest to you that perhaps the actual gross ton mileage is the figure that I have just stated to you, of 29,117,608, and that you produce a different figure simply because you assume that this four hundred and four was obtained in some way other than the actual one? A. Yes, if it was pro-

duced in that way, yes, sir. The test which I made, and which I have produced here in rough, of calculating the car mileage on branch lines together with the live weight as given by Mr. Johnson, and divided them by the total for the year, shows a test of 417 gross tons per train. That was the reason I took his figure of four hundred and four, being less than that test produced by me.

Q. Well, the records being available to you, Mr. Hillman, if you will examine them and determine from them what the actual gross ton miles are, as shown, and you determine from such examination that it is 29,117,608, as, with your permission, Mr. Young, I will state in the record that Mr. Johnson says it is, you will then concede that this correction—that the relation of branch line freight to main line through should be corrected so as to raise your relation of 299, would you not? A. No, sir, not 299, but it would disturb the relation of 275.

Q. That is so because you have increased the other to 521—that it would increase the relation of 275? A. Yes, sir.

Cross-examination of Mr. Hillman here suspended.

MR. HILLMAN,

having been heretofore duly sworn, was recalled by the defendants for further cross-examination, and testified as follows:

EXAMINATION

By Mr. Donnelly:

Q. Have you undertaken to check the gross ton mileage branch line figures, as stated to you, of 29,117,608? A. No, sir, I have not. I have gone into the computation, however, which I told you in my

previous testimony I had gone into in order to produce a tonnage of 417 tons, and I think that that figure, when I finish, will probably cover what you desire in this question of the check which you have just asked.

Q. Well, it was stated by Mr. Johnson that that gross ton mileage was obtained from figures, first, of the net ton mileage which he showed, and then increasing that by sixteen times the number of car miles. A. Yes, sir.

Q. Were the data from which that computation was made supplied to you? A. No, sir, I did not figure on that at all. I would be willing to take Mr. Johnson's statement for that figure.

Q. Then that is accepted as being the correct gross ton mileage for the branch lines? A. I will accept that on the basis of his computation without checking.

Q. Then, that being the gross ton mileage for the two months for the branch line movement, would it not result in a reduction of your gross ton mileage, branch lines, of 31,559,208, as stated on Page 43 of your testimony? A. It would, yes sir.

Q. Now, if you—have you determined also what was the main line through mileage? A. Not for this period, no, sir. I am allowing Mr. Johnson's figures to stand as they are upon that statement for the purpose of a comparative statement which I desire to make in the record either here or on re-direct examination.

Q. Well, then, the main line through mileage as shown on that Exhibit, dividing the $45,129.62 by the gross ton mileage which you accept as correct as stated by Mr. Johnson, it does give the 15.50, as shown

on Exhibit N. P. No. 20, does it not? A. It does, yes, sir.

Q. Or a relation of two hundred and ninety-nine (299) to one hundred (100) as shown on that exhibit? A. As shown on that exhibit, yes, sir.

Q. And if that is accepted, there is, of course, no justification for your reduction of that relation to 275? A. Not if I accept that as the final figures for the adjudication of that amount.

Q. But I understand you have accepted those figures as correct. A. For the purpose of making a further comparison which will bear out my testimony in this case, and which I desire to make now or on re-direct examination, as may be determined by you.

Q. Well, accepting those figures as you do, certainly the relation of 275 to 100 cannot be obtained in the way it was obtained as explained in your testimony? A. No, sir.

Q. So that you now propose, as I understand you, to show, or substantiate your testimony by the adoption of a different method, and the abandonment of the one used in the testimony? A. Yes, sir, It is by the adoption of the method which I used to check that in order to determine whether 404 would express the correct tonnage when multipled by the full train miles instead of the full train mileage less the passenger proportion of the mixed. You see this matter has been checked by me, and accepted on this basis. I am proceeding to show that basis as to why I considered that method there the proper one, and to substantiate that by the figures which I had used in my check to determine that matter originally.

Q. Will you go ahead and explain that, Mr. Hillman? A. Taking Mr. Johnson's figures upon Exhibit

No. 20, the average loading of main line trains amounts to 1,334 tons per train. That is found by taking his number of train miles which he has expressed as the through train mileage of 182,694, and multiplied it by 1,476 tons, giving us a total of 269,656,344 ton miles. We have then taken the 38,910 main line way freights and multiplied them by the 669 tons per train mile shown by him on Exhibit No. 20, which gives us 26,030,790 ton miles, or, a total on the main line of 295,687,134 ton miles. The total train mileage on the main line through and main line way, which equals the total main line mileage, is 221,604. Dividing that 221,604 train miles into the 295,687,134 ton miles gives me an average loading of 1,334 tons per train for my main line. The total cost as given for main line both through and way as per the figures in Mr. Johnson's Exhibit No. 20, amounts to $175,814.68, which, divided by the train mileage of 221,604, gives us 79.34 as the cost per train mile on the main line. If, now, we divide the number of tons, 1,334 per train, into that 79.34, we come to the figure for the main line, of 5.95 cents per one hundred ton miles. Divide that 5.95, which is the main line cost per one hundred ton miles, into the 15.50 which is the branch line per ton mile as shown on Mr. Johnson's exhibits, gives us a relation of the branch to the main line, of 2.61, that is, that the cost per train mile on the branch is 2.61 times that on the main line. We now refer to the paper which was furnished me by the Northern Pacific, and is one of their regular papers. It is the yearly summary from the office of the car accountant for the train and car mileage for the year ending June 30, 1911, which, if necessary, I can submit as an exhibit, but I think the figures can be readily

checked from that, and it will not be necessary. We have a total car mileage branch lines of 5,985,380, freight. Multiplying this car mileage by sixteen, gives us a total ton mileage for the dead weight, of 95,766,080, to which we add the live weight for the branch line, of 65,888,167, for the year, which is, on Mr. Johnson's Exhibit No. 22, shown, making a total of 161,654,247 ton miles. The corresponding train mileage taken from the same summary of the Northern Pacific, amounts to 414,623 freight train miles.

Q. On branch lines? A. Yes, sir, on branch lines, from which the deduction has already been made for the twenty-five per cent of mixed trains chargeable to passenger. Dividing this into the number of ton miles we had above, we have 390 tons as the average loading of the branch line trains. From the same blank we find that the main line car mileage is North Dakota for the year is 45,143,316. Multiplying these by sixteen, we have a total ton mileage of 722,293,056. The main line live ton mileage for North Dakota was 635,843,855 ton miles as shown on Mr. Johnson's Exhibit No. 22, making a total of 1,358,136,911 ton miles. The corresponding train mileage was 1,173,220, which figure is also taken from the above quoted statement of train and car mileage for the year. Dividing this latter figure into the total gross ton miles, gives us an average loading on the main line for the year, of 1,158 tons per train. The cost per train mile will, as you will recall, on the main line amount to 79.34 cents. Dividing the 1,158 tons of loading on the main line into that, gives us the cost for the year, or based on the year's figures, of 6.85 cents per one hundred miles. The cost as shown per train mile for the branch lines is 62.6, as shown by Mr. Johnson's Exhibit No. 20.

Dividing the 390 tons found from the year's figures into that gives 16.05 cents per one hundred ton miles. If we now divide the cost which we have just found per one hundred ton miles on the main line, or 6.85, into the 16.05, we have a relation of 2.34 plus, times that, or call it 2.35 times. In other words on the year's figures the cost of the branch line is only 2.35 times that on the main line, while on Mr. Johnson's figures, as expressed in Exhibit No. 20, the cost deducible is 2.61 times, or, in other words, there is a ten per cent difference between the year's figures for the relation of branch line to main line, which would be found by dividing 2.61 into 2.35, giving us practically ninety per cent. If, now, to the 390 which we found for the branch line train tons, we were to add this ten per cent, we would have the figures reduced to the basis of Mr. Johnson's Exhibit No. N. P. 20. That is the check which we had made worked out into detail. We had formerly followed it only to a limited extent, and found that our train tonnage ran to 418 on rough fractions, per train mile, and therefore dropped back and assumed that we were taking Mr. Johnson's figure of 404, and that is the reason for the adoption of that.

Q. That result is arrived at, Mr. Hillman, by taking the train tonnage for the year and applying it to the cost as ascertained for two months? A. Yes, sir.

Q. And therefore may or may not be fairly representative? A. Fairly representative of what?

Q. Of the actual relation of branch line cost to main line cost. A. The broader the base you can get, the better your computation.

Q. Undoubtedly, if you have corresponding figures to which to apply them, but in taking this train tonnage for the year, and applying it to a cost ascertained

simply from two months, you are assuming that although the train tonnage for the year is shown to be different from what it was for the two months, yet the cost for the year would be the same as it was for the two months. A. Certainly, sir. If I can state that in another way—

Q. (Interrupting witness.) Well, that is the way in which I want you to state it. A. Yes, sir.

Mr. Donnelly: That is all for tonight, then.

An adjournment was here taken until 10:00 o'clock A. M., July 5th, 1912.

The hearing being resumed at 10:00 o'clock A. M., July 5, 1912.

Present the attorneys for the State of North Dakota.

Present the counsel for the several defendant railway companies.

Mr. Hillman on the stand.

The following proceedings were had:

Cross examination continued.

By Mr. Donnelly:

Q. Mr. Hillman, the train tonnage for the two months, as shown in the statement for the entire main line is 1,334? A. Yes, sir.

Q. And for the entire year, as worked out by you in this statement, it is 1,158? A. Yes, sir.

Q. And you assume that the cost per train mile is 79.34 for the entire year, the same as for the two months? A. Yes, sir.

Q. That is to say, notwithstanding the loading of the train for the entire year is diminished so as to be only about 87 per cent of the load as shown for the two months, you take the cost to be the same. A. Per train mile, yes, sir.

Q. Per train mile? Is that a valid assumption? A. I should say approximately valid. Not actually. There are certain train expenses amounting to a small percentage which would vary according to the load placed on the train. Per train mile, however, the expenses, outside of this small fraction, would be the same regardless of its loading.

Q. But it is fair to assume, and it is a fact, isn't it, that without going into any detail as to what the factors are, it does, year in and year out, cost more to move a train load of 1,334 tons than it does to move a train load of 1,158 tons? A. It costs more, yes, sir.

Q. And you have made no allowance in this calculation for the difference that does so exist? A. No, sir.

Q. Now, Mr. Hillman, this figure of 390 tons average loading for the branch line for the year is absolute, is it not? A. Yes, sir, I should say it was.

Q. So that upon no hypothesis could there be a legitimately assumed branch line train load of 429 tons, or 417 tons, when the actual figures show it to be only 390? A. No, sir, you could not.

Q. In reaching the figure which you do reach at page 43 of your testimony, of 31,559,208 gross ton miles for the branch line, you assumed that Mr. Johnson had reached his 404 tons average train load in a method different from that which is now shown to have been the method pursued by him, did you not? A. Yes, sir.

Q. And now, knowing as you do, the method pursued by him, you would say, would you not, that the figure of gross ton miles as stated by him ought to be

accepted? A. Yes, sir, should be accepted as November and April figures.

Q. And that figure you understand to have been reached after the elimination of 25 per cent of the mixed train mileage? A. Yes, sir.

Q. That being so, and twenty-five per cent of the expenses of the mixed train having been eliminated by him, there is in the record no justification for your change of the relation from 299 to 275, is there? A. No further justification than that I have given in the explanation immediately prior to this.

Q. How does that justify it? A. It justifies it simply in the relation which exists between the total figures as shown by him in his computation and those that I have used. If you desire to confine the application of the question to statement No. 4, I would say that the reduction is not justified.

Q. Statement No. 4? A. Statement No. 20.

Q. But in the calculation which you have made, and which you rely upon as a justification of that change, you do not produce any such figure as a relation of 275 branch line to one hundred main line through, do you? A. No, sir, I have split up the main line on the new basis into through and way trains in order to obtain any relation between the through train and the branch.

Q. But that is the basis upon which your testimony was given, isn't it? A. Yes, sir.

Q. And the only means of checking the accuracy of your testimony would be by the production of figures which you contrast with the testimony given, wouldn't it? A. Yes, sir.

Q. And that has not been used? A. No, sir, not fully. Only to the extent of the comparison of the

total main line with the total branch line. Not main line through.

Q. And that leaves it more or less problematical what the relation of the branch line to main line through would be? A. Yes, sir, it would leave that question open until the further computations are made.

Q. Can they be made? A. Yes, sir, they could be made from the data which we have submitted in the case. I suppose with the data that the Northern Pacific have at present, we would have to fall back upon the percentage between the main line through and the main line way trains, shown on Mr. Johnson's Exhibits No. 20 and No. 22.

Q. But with the data at hand, and so far as computations have been made, it is left uncertain what the relation of branch line to main line through would be, except as that relation is shown on Northern Pacific Exhibit No. 20? A. No, sir, I would not like to go that far in the statement of that.

Q. It is either uncertain or it is certain, and if it is certain, what is it? A. It is certain that that relation has not been shown outside of N. P. Exhibit No. 20, or the corrections which I have made to N. P. Exhibit No. 20.

Q. Corrections which you have made in your previous testimony, you mean? A. Yes, sir.

Q. To Exhibit 20? A. Yes, sir.

Q. But those corrections are confessedly erroneous, are they not, as having been made on a wrong assumption? A. Only insofar as branch line trains go. There is a certain increase in the main line tonnage which I have taken up, which would interfere with that relation. Considering that, I would say that this is where,

and the only place where, that is shown on Exhibit No. 20, in full detail.

Q. That is, you mean after the main line percentage has been increased from 518 to 521? A. No, sir, just mentioning that as a memorandum that there was a correction of those figures entered by me. It was not put in tabulated form. I wanted to have that in there for the reason that I did not want it to appear in the testimony when looking up this matter, to parties who had not been conversant with the entire record, that there should be a statement on file by me that this is the only place in the record where that relation is shown. It is a matter of precaution, or protection of parties reading the record who are not familiar with the proceedings.

Q. But it is true, Mr. Hillman, that unless the relation of 299 to 100 as shown by Mr. Johnson in Exhibit No. 20, is correct as testified by him, there is in the record no means of ascertaining the exact relation of the branch line to the main line and through? A. Yes, sir, there is. At the foot of this Exhibit No. 20, there is another set of figures which bear upon that point, from which this relation could be determined.

Q. The relation of cost? A. Yes, sir.

Q. Well, we want to get—if there is testimony available from the state that definitely and certainly corrects that exhibit on the relation of branch line to main line through, I want it produced. A. At the foot of N. P. Exhibit No. 20, there are 259,787,614 gross ton miles quoted. The mileage quoted for that is 182,694 main line through, giving an average loading of 1,422 tons for main line through trains. The figures main line way trains at the foot of N. P. Exhibit No. 20 show

25,313,590 ton miles, train miles 38,910. Dividing one into the other gives us 651 tons as the main line way loading. If we now divide 1,422 tons, main line through loading, into the 76.5 cents per train mile, it gives us 5.38 cents, main line through per one hundred ton miles. Dividing 651 into the 92.5 for main line way trains, gives us 14.21 cents per one hundred ton miles on main line way trains. We leave the 15.5 cents as it stands upon Mr. Johnson's Exhibit No. 20, for the purpose of this comparison. Dividing the 5.38 cents per one hundred ton miles on the main line through, which we consider as a unit, into the 14.21 cents per one hundred ton miles on main line way, we have a relation of 2.64. Dividing the main line through figure of 5.38 into the 15.5 cents of the branch line train, we have a relation of 2.88. That means that according to those figures gives 2.64 times the through train cost to carry a ton mile on the main line way, and 2.88 times to carry a ton mile on branch.

Q. Mr. Hillman, according to your testimony as it stands now, then, the relation is 288 to one hundred branch line to main line through? A. That is correcting this traffic, yes, sir.

Q. Of course that would give a different result from the 275 that you have used in your testimony and in your tables? A. Yes, sir. Of course there is this reservation made there, for the purpose that I have mentioned to you, that this is not abandoning my final reduction of the figures. Correcting the statement according to the other figures as shown on its face, that is all.

Q. And it is the only absolute correction of them giving any definite relation, which is deducible from

the record? A. It is the only one that has been given so far, yes, sir.

Q. Now, did you read the heading at the top of Exhibit 20, at which the train mileage which you have used is stated? A. I am reading it now.

Q. You have read it now? A. Yes, sir.

Q. You observe that those figures of train mileage are on operating districts within or touching the state of North Dakota? A. Yes, sir.

Q. Is it proper for you to use those figures for the purpose of dividing into the ton mileage within the state as shown at the bottom of the exhibit? A. Well, that I do not know. I could not say. I do not know what that "touching North Dakota" means. I do not know whether that includes train miles, and necessarily, then, ton miles, outside of the state or not. If the train mileage mentioned there is not for the state of North Dakota then, of course, you would observe that the difference between the figures at the bottom and figures at the top of Exhibit No. 20, that is, when the figures at the top had been reduced to train miles, would be due to the inclusion of runs outside of the state of North Dakota.

Q. Well, it is obvious that that is done, isn't it, from your own figures as previously testified to, which show a load of 1,476 tons for the main line in North Dakota, whereas the result you have just produced shows only 1,422? A. Well, if I had testified to the 1,476 tons, yes, sir. I have used 1,476 tons frequently in my computation, which is not my figure.

Q. Have you any corresponding figures which show the tonnage of the main line through trains? A. For those two months?

Q. For any period. A. No, sir.

Q. Then it is the figure which you have used, and which the other side has used? A. Yes, sir.

Q. And it is your figures as much as those of the other side, for the purposes of this case, isn't that so? A. I do not know what the legal aspect of that is. I have used that figure, however.

Q. You observe, at any rate, that the mileage covers divisions within or touching the state of North Dakota? A. Yes, sir.

Q. Or 182,694 miles? A. Yes, sir.

Q. And you observe that that is not stated as to the ton mileage at the bottom of the exhibit? A. There is no such satement at the bottom.

Q. And if the mileage is in fact for divisions which lie partly outside of the state of North Dakota, and the ton mileage is entirely within the state of North Dakota, the result which you have just produced is wrong as to the relation. Isn't it? A. Yes, sir.

Q. Now, coming back to the relation of main line way to main line through, you state in your testimony, that you have reduced the cost per train mile from 92½ cents to 76½ cents. Is that correct? A. Yes, sir.

Q. You have made a reduction of sixteen cents per train mile, which reduction you say is due to the fact that you consider excess charge to be entirely due to the presence in the way freight train of the peddling car. Is that true? A. Yes, sir, I have considered it upon that basis.

Q. Now, were figures made for the purpose of determining that sixteen cent reduction? A. No, sir.

Q. It was reduced simply in gross, as an expression of your judgment? A. Yes, sir.

Q. Why does the cost per train mile for way freight

trains on the main line exceed the cost per train mile for a through freight train on the main line? A. The men are paid higher wages. The train crew costs more, and also I should think—it would be my judgment, that the expenditure of fuel might be higher per train mile on a local train than the through train, though that would be a matter that I could not be positive of, but I should think it would.

Q. Can you think of any other cause for increasing the cost? A. No. Unless it might be there would be more excess time allowed. That would come into the train the same as the wages.

Q. The fact that the train moved more slowly over the line is a very important factor, isn't it, in the increased cost per train mile. A. Yes, sir, that is taken into account in the payment of the men's wages.

Q. Now, there is one additional brakeman required on these way trains? A. Yes, sir, that is my understanding of the case; that they have one additional brakeman.

Q. The wages of that additional brakeman as shown in the schedule as read into the record by you, is 3.16 dollars per day or one hundred miles, is it not? A. Yes.

Q. $3.16 per day, that would be 3.16 cents per mile, wouldn't it? A. Yes, sir.

Q. Therefore the cost of the train is increased that much by that additional brakeman? A. Yes, sir.

Q. Over any other train that did not carry that number of brakemen? A. Yes, sir.

Q. Now, then, how much per mile is it increased by the increased wages that the men draw? That is capable of easy determination, is it not? A. Yes, sir, I think it can be. According to the reading of Article

3 and 4 of this schedule for train men's service, N. P. R., there would $2.08 extra compensation for the conductor and two brakemen, and $3.16 for the extra brakeman, making the total $5.24 per day.

Q. Per day or one hundred miles? A. Yes, sir.

Q. Or 5.24 cents per mile? A. If the mileage of the train is computed on the one hundred mile basis, yes, sir. If the wages are computed on that.

Q. That is stated in the article, is it not, as being what is taken to constitute a day, one hundred miles or less, ten hours or less. A. Yes, sir, but we must remember one thing in that computation, that the way freights do not run, always, one hundred miles. They are frequently paid their one hundred mile wage rate for less than one hundred mile runs. I do not know to what extent that would enter into this problem of the application of $5.24 more per day,—into the computation based on the mileage made by the trains of one hundred miles each.

Q. You say you do not know how much that would enter in? A. No, sir.

Q. Well, if you eliminate that, then, as being an unknown factor, and accept the normal one hundred miles per day, which is the representative mileage per day for the crew, the excess cost due to the presence of the peddling car in the train is 5.25 cents, substantially, per mile? A. Yes, sir.

Q. Then the additional 10¾ cents shown in the exhibit would be entirely due to the slower movement over the line and such increased consumption of fuel as there might be? A. I should say, yes, it would be. We might include in that, if you please, that in that computation for the slower movement over the line is included that difference of whatever the local train

makes with its one hundred mile run, as you say it is based in ten hours time or one hundred miles, either, according to that rule. Perhaps that would cover the case more completely.

Q. So that upon your theory, not only have you charged to the presence of the peddling car in the train, the 5.25 cents extra per mile due to the extra brakeman and the added wages, but you have also charged the ten and three-fourths cents per mile due to the slower movement over the line? A. Yes, sir.

Q. And that assumes, then, that that slower movement is entirely due, then, to the handling of freight en route? A. Yes, sir, that the increase in wages is made entirely upon that basis.

Q. And you make no allowance whatsoever for the switching that is done? A. Not in the computation, no, sir.

Q. And you think, as a statistician, that none should be allowed, and are willing to go on record as so stating? A. No, I would not go that far, sir.

Q. Then, qualify it to such extent as you see fit. A. I would say that the extra compensation granted with reference to higher wages and extra men, is entirely due to the presence of the peddling car on the train. I would say that a large portion of the balance of the extra charge, due, you might say, to the longer time spent on the road, is also due to the same cause. To the extent that pick-up trains would have to be sent out to do the work of switching, and to the extent that these trains did not make their one hundred mile run—to whatever extent that entered into it, I mean on the deficit of wages as between the miles actually run and the miles actually paid for on the train—to

that extent there would be a charge due to switching and not to the peddling car.

Q. How much do you think that should be? A. I could not say without an examination of the schedules of the runs, both those trains classed as through and those trains classed as the way.

Q. You would be absolutely at sea as to that? A. I would be absolutely at sea as regards that except for comparison of other runs, on other roads, which would be probably such as to fulfill the operating conditions which exist on the Northern Pacific.

Q. And inasmuch as you would be absolutely at sea but for a comparison which would be inapplicable, you would be absolutely at sea after the application of the comparison, would you not? A. Yes, sir.

Q. So that the extent to which the excess charge is due to switching is something which you can not say? A. I can not say. Especially so in our through trains, where there is an element of switching included, which would further complicate it.

Q. Do you know how much that is? A. No, sir, that would have to be computed on comparison of the trains taking it from the dispatcher's schedule.

Q. Now, the acceptance of a movement of one hundred miles per day or ten hours as shown in the schedule, does indicate a slower movement than that of the average through train? A. Certainly, sir.

Q. And if I understand you, if a way freight train got over one hundred miles in ten hours, you would say that the entire extra cost of that train per mile over the cost per mile of a through train is chargeable to the peddling car—to the presence of the peddling car in the train? A. Yes, sir, it would be.

Q. And the correctness of that assertion would

depend entirely upon the question of how much of the time of the train crew was taken up in the handling of freight en route, would it not? A. Yes, sir, and if at any time the switching delayed them at any station, beyond the time of loading and unloading freight, that is an element which enters into it.

Q. But you assume that it would not be delayed? A. I assume that there would be no delay; that when they finished loading and unloading the car of package freight, they would pull out and leave that switching for their return, or for a pick-up and set-out train that would follow.

Q. No delay occasioned by switching? A. No, sir.

Q. The slowness of the movement would be entirely due to the delivery of the freight? A. The less than carload business, yes, sir.

Q. Now, of course, in actual operation, as to whether that is so or not, would depend on whether, at these stations in North Dakota the Northern Pacific Railway Company had men handling freight and relieving the train crew from doing it, wouldn't it? A. Yes, sir, at small stations the train crew is not relieved from it. Of course at terminal stations where they have freight handlers it is not subject to those conditions.

Q. At what stations in North Dakota does the Northern Pacific Railway Company have freight handlers, and at what stations have they none? A. That is not stated in the detail of operating expenses which I have taken. It is not stated by stations. I could not tell you.

Q. You do not know, then, where they have the freight handlers and where they do not? A. No, sir, I do not know.

Q. Now, Mr. Hillman, your Exhibit No. 2 shows a total operating expense for the year 1911, chargeable to coal, of $54,716.50. A. Yes, sir.

Q. To that there should be added the revenue proportion of the taxes of North Dakota, should there not? That is, to get at the relation of the revenue to operating expenses and taxes? A. Yes, sir, I have so used that. Those taxes amount to $2,424.15. The amount taken from Mr. Johnson's exhibit in the case.

Q. Making a total of $57,140.65 chargeable to operating expenses and taxes, that is correct, is it? A. Yes, sir.

Q. The amount of the revenue is $58,953.07, is that correct? A. I have not that figure handy, I think that is correct.

Q. And deducting the amount which, as your Exhibit No. 2 shows, is chargeable to the lignite coal traffic for operating expenses and taxes, it would show a profit for the year of $1,812.42, is that correct? A. Yes, sir.

Q. From that there should be still further deducted whatever the amount would be charged to the freight on account of the proportion of passenger expenses chargeable to freight, should there not, that amount being, as I think you stated, about one-fifth of one per cent? A. Yes, sir, there should be.

Q. And that I think you stated was, in your judgment, approximately one-fifth of one per cent? A. I think it should be higher than that.

Q. You think it should be more than that. A. I think it should be one-fourth, or, perhaps, one-third of one per cent.

Q. That would be about one hundred and eighty

dollars? A. Yes, sir, that would, I think, just about cover it.

Q. Now, there should also be some further indefinite concession, should there not, on account of the extra expenses for car repairs due to what you concede to be the extra switching on account of the short haul? A. No, sir, not on the basis that I gave as my computation of it. There should be a slight compensation if it is made upon the basis which you gave as the total. You remember that you gave me eight movements for each class of traffic, plus two for the through traffic, and making a proportion of eight to ten, which I thought was too high, and changed, on my basis to a two-to-three basis, instead of the eight-to-ten basis. On my basis there would be no compensation due to switching. On your basis there would be some, probably, I should say, in rough figures, four per cent.

Q. Well, upon your basis there are thirty switching movements in connection with the movement of the lignite coal to every twenty in connection with all freight in North Dakota? A. Yes, sir.

Q. And you state, as I understand you, that the cost of car repairs is very considerably increased by the switching that the cars undergo? A. Yes, sir.

Q. Then why would not the extra ten switch movements in the case supposed entitle the company to some allowance for extra repairs? A. For the reason that the car repairs are brought into the state of North Dakota upon the basis of the car mileage. The Northern Pacific throw into one pot their car repairs all over the system, and assign them wherever it is necessary on the car miles run. The percentage of car miles in North Dakota for the year is 14.75 per cent. The percentage of switching as measured by the switching

miles for the system, and for North Dakota is only 6.86 per cent. If we consider the switching as a matter which should enter into the computation of the damage done to cars, we are not justifiable in assigning to North Dakota a proportion of the switching based upon its car mileage, but we must assign it upon the combined basis of car mileage and switching mileage carried within the boundaries of the state. I have based my statement that there should be no extra cost assignable to the state on the figures which I furnished, of twenty to thirty, on an estimate that twenty per cent of the damage to cars was done directly in switching. That would leave eighty per cent of the expenses to be brought over to North Dakota on the basis of the car mileage or 14.75 per cent, giving a total of 11.8 per cent. When we take eighty per cent of the 14.75, the other twenty per cent should be brought over on the basis of 16.6 per cent, on account of the damage incurred in switching. Even this is a high percentage for North Dakota, for the reason that a large portion of the Northern Pacific switching and damage incurred is not expressed in their switching miles, it being done at terminals at both ends of the road, which terminals do not occur to as large an extent in North Dakota as they do on the main line. Passing that by and leaving it at 6.86, you have twenty per cent of the total which would make 1.37 per cent assignable on that basis; adding it to 11.80 would make 13.17 per cent to North Dakota of the total car repairs, which is practically ninety per cent of the amount which was brought over on the car mileage basis, the percentage being 14.75. We have on the basis of twenty to thirty, an increase of fifty per cent over and above other through business on local. Fifty

per cent of the twenty per cent gives us ten per cent, which offsets the amount which was on this basis erroneously assigned or brought into North Dakota. On the basis which you mentioned to me, of eight to ten, in your question, it would be seventy per cent of the twenty per cent which should be charged to this business, or fourteen per cent, which is four per cent in excess of the charge to North Dakota in error. Therefore, on your basis, four per cent of the car repairs could be consistently added to the car repairs in Exhibit No. 2. I do not know what the amount is, but I will figure it for you.

Q. I do not care to have it figured out, unless you concede the correctness of it. I am trying to get at your own concession which should be added because of the corrections which you think are to be made in your testimony as you go along. I understand you to say that because of the fact that you allowed too much in your exhibit on the assumption that the switching movements are the same for lignite as for all traffic, you still think the figures are correct upon the assumption which you are at present indulging in, that the switching movements of the lignite traffic are one hundred and fifty per cent of all traffic? A. Yes, sir.

Q. Coming, then, to the comparison of cost for main line way as compared with main line through, some indeterminate amount should likewise be added for that proportion of the excess expense which is chargeable to switching, whatever that proportion may be, should there not? A. Yes, sir, whatever that can be determined to be.

Q. And some additional amount should likewise be added if, in point of fact, the relation of cost of branch line mileage to main line through, instead of being

275 per cent, as you have assumed in your testimony, is, in fact, some figure in excess of 275? A. Yes, sir.

Q. Now, you know, in fact, from your familiarity with the Northern Pacific system in North Dakota, that the fuel which is used for engine purposes in North Dakota is not obtained in that state, but it is moved there from the outside? The engine fuel. A. That is right, yes, sir.

Q. Also, that the ties that are used in maintaining the track and bridge timber, etc., is all moved in from the outside? A. I should judge that a large proportion of it would be. I am not very familiar with the sources of timber there, but would judge that a large proportion of it would be moved into North Dakota.

Q. No account was taken of that either by Mr. Johnson or yourself, or any of the witnesses, in computing the cost of freight movements in that state, was there? A. Only as that freight movement occurred in the state of North Dakota itself.

Q. Only as the movement of this fuel, you mean? A. Yes, sir. If there is mileage made outside of the state for that haul, it was not taken into the computation.

Q. In point of fact, to get at the whole thing with as much accuracy as it is actually susceptible of, some account should be taken of that? A. Yes, sir, unless in some thing that I did not familiarize myself with here, and that is whether the fuel is purchased F. O. B. at Duluth or St. Paul, or at distributing points, and then distributed by the company as company material and whether, in doing that, the storekeeper, in making his fuel disbursements, is allowed to add any-

thing to the cost for the excess haul. I do not think that the Northern Pacific do that. I think they count the cost of the coal as delivered to them F. O. B. at some distributing point and make their distribution accordingly, as suits themselves. They may have a dozen distributing points.

Q. But wherever they treat it as delivered to them, the actual cost of movements of it from the terminus of their line at which it is delivered to them, is, of course, borne by the Northern Pacific? A. Yes, sir.

Q. So that whether, as an accounting proposition it would show up as an expense or not, it would be an expense in fact, would it not? A. Yes, sir, it would be.

Q. And so far increase the freight operating expenses in that state? A. Insofar as that haulage of the Dakota stuff is done outside of the state, yes, sir.

Q. Now, you have heard the testimony of the witnesses to the effect that this movement all occurs during the cold months of the year, or principally occurs during that period, and you know that the exhibits showing the movement show that to be the fact, that the principal movement is during the colder months? A. Yes, sir.

Q. Of course, you know that the operation of a railroad in North Dakota during those months, winter months, is more expensive than during the summer months? A. I should think it would be, yes, sir.

Q. No account was taken of that in your figures any more than in Mr. Johnson's? A. No, sir, we took the months expressed by the months of November and April, and so far as the—we might say—the direct operating conditions during those months would be different from the months in which the bulk of the

coal moved, there might be a difference in the cost of carriage.

Q. Probably would be, would there not? In the month of December? A. You could not set up a set of figures for two months without showing some difference somewhere.

Q. No, but from the actual fact of the movement during the months when they are encountering the snow blockades and cold weather in North Dakota, there certainly would be some difference? A. I should think there would be.

Q. Now, then, Mr. Hillman, taking these additional factors into consideration and giving them such consideration as you, in your judgment think they are entitled to, you would say, would you not, that the margin of profit from the movement of this coal during the year 1911, if there was any, was at least very small? A. Yes, sir, I would say that there was a margin of profit even taking those things into consideration, but that the margin of profit was a small one.

Mr. Donnelly: That is all.

Mr. Hillman here announced his answer to the question asked him earlier in his cross-examination, to which the answer, as indicated in the record, was postponed, which answer was as follows:

Question read: "Well, now, turning to pages 5 and 6 of your testimony, where you deal with this item, you say: 'While Mr. Johnson's Exhibit No. 17 gives us the percentage for fifteen months, I considered the application of these figures for fifteen months, or, to be more exact, fourteen and two-thirds months, as incorrect, as he should apply the twelve months data

to the actual twelve months expenses. That is, the data for the fiscal year should have been applied to the expenses for the fiscal year. I have therefore cut out the first three items of Northern Pacific Exhibit No. 17, which gives me the following totals: Number of cars, second column, 4410; main line and local trains loaded car miles, 178,166; the next column, the same in through trains, 129,648; in branch line trains, 38,387. Total, 346,201. Empty car miles, main line, total of column, 216,487; branch lines, 30,774; total, 247,261. This would correct the figures which are shown at the bottom of Northern Pacific Exhibit No. 17. Loaded car miles in local trains, percentage, 51.46; in through trains, 37.45; in branch line trains, 11.09. Empty car miles per cent of loads, 71.42. Shifting, now, to Northern Pacific Exhibit No. 22, third paragraph, first page, it gives us, equated ton miles, 919,213,121.' How do you produce that figure?" A. In making a computation of the equated ton miles I find that the total should be, instead of 919,213,121 ton miles it should be 918,190,559 ton miles, owing to an error which I made in computation. This gives me a cost instead of 1.5925 mills per ton mile, a cost of 1.5969 mills per ton mile, or an addition of $61.21 on the total, to be added to my expenses. If we had taken that on another basis, which showed that as 917,000,000, this 918,190,559 ton miles show another slight correction. If we take it on that basis, which is the actual basis shown by Mr. Johnson on his Exhibit No. 20, we will find that the cost per ton mile is 1.6, almost exactly. It runs 1.5996, which I have made 1 per ton per mile, which ould give an additional cha.ge of $181.00 instead of 61.21, which I have just mentioned.

Mr. Donnelly: That is all.

Recess was here taken until 1:30 o'clock P. M.

Hearing having been resumed at 1:30 o'clock P. M.

Present: The counsel for the State of North Dakota.

Present: The counsel for the respective defendant railway companies.

Mr. Hillman on the stand.

The following proceedings were had:

RE-DIRECT EXAMINATION.

By Mr. Young:

Q. Mr Hillman, in the cross-examination you showed on the basis of the annual figures and the costs shown by Mr. Johnson's Exhibit No. 20, a relative cost of the branch line ton mile of 2.35 times that of all main line ton miles, did you not? A. Yes, sir.

Q. Now, if you reduce the figures which you used in the proportion of your exhibits in this case, on the same basis, how many times the main line ton mile cost is the branch line ton mile cost? A. 2.49 times.

Q. Now, have you figured this result which you have just stated in answer to the former question, so that you can give the figures called for by Mr. Donnelly in the cross-examination, of the main line through, main line way and branch lines? A. Yes, sir, in doing so we used the percentages as between main line through and main line way shown upon Mr. Johnson's Exhibit N. P. No. 20, and applied those to the year's figures. Applying that percentage, it gives you a relative cost per ton mile for the year's tonnages of main line through, a unit one; main line way, 2.185; branch lines, 2.684.

Q. Now, if you use these percentages which you have just stated, you would reduce the expenses of the lignite business? A. Yes, sir, that would be reduced slightly. I did not compute the amount, and could not state exactly what it would be because I have not run those percentages through.

Q. Figuring, now, on the total gross tonnage for the year, what percentage of the gross weight was handled on the branch line trains? That is, what percentage per train? A. 25.2 per cent.

By Mr. Donnelly:

Q. That is of all business? A. Per train, yes, sir. Which is found by taking the 1,158 tons loading on main line trains—the average loading, I mean, adding the 390 to it, which is the branch line train loading, and percenting it shows that the branch line train percentage of tonnage is 25.2 per cent of the total.

By Mr. Young:

Q. And figuring on the basis of Mr. Johnson's Exhibit No. 20, what was the percentage? A. It is 23.25 per cent, taking 1,334 tons as the loading of main line, 404 as the loading of branch line trains, and the 404 being 23.25 per cent of the total.

Q. What per cent increase, then, do your figures show? A. They show that for the year there was about 7.5 per cent more tonnage carried on branch line trains, proportionately for the year, than in the period mentioned by Mr. Johnson in his Exhibit No. 20. It was upon this basis that I deduced 418 tons as the loading which I had used. If, to my 390 tons you will add 7.5 per cent, you will find that it approximates 418 tons. This is the check to which I have referred several times in my testimony, and was not done exac[illegible]n these figures, but upon figures

which were based upon them, and were slightly more roughly gotten at, and therefore the figure was 417 instead of this figure, which is 419, and it was upon that basis that I had adopted Mr. Johnson's figure of 404.

Q. In the cross-examination you stated on Wednesday, I believe, Mr. Hillman, that some of the figures used by you in the computation which you were required to make, were taken from a summary furnished you by the Northern Pacific Company, which is entitled Train and Car Mileage for the year ending June 30, 1911, did you not? A. I did, yes, sir.

(A blue print is produced, and marked, for identification, Plaintiff's Exhibit No. 55, by the reporter.)

Q. Examine Plaintiff's Exhibit No. 55, and state if that is the summary to which you refer. A. It is, and from which certain figures referred to in the testimony of Wednesday were taken.

Q. And this summary was furnished by the Northern Pacific officials? A. Yes, sir, it was handed me by Mr. Johnson, the Assistant Comptroller, in response to my request for it.

Mr. Young: We offer Plaintiff's Exhibit No. 55 in evidence. I think that is all on re-direct examination.

RE-CROSS-EXAMINATION.

By Mr. Donnelly:

Q. These computations are all made upon the assumption that though the tonnage per train is less, the cost is the same? A. Yes, sir, upon the assumption that the cost per train mile shown on Exhibit No. 20 remains constant.

Q. Although the tonnage is less for the year? A. Yes, sir.

Mr. Donnelly: That is all.

RE-DIRECT EXAMINATION.

By Mr. Young:

Q. The percentages to which you have just testified in your re-direct examination, to which Mr. Donnelly has just referred, are relative, are they not? A. Yes, sir.

RE-CROSS-EXAMINATION.

By Mr. Donnelly:

Q. What is the actual cost for each one hundred ton miles as determined by you for main line through, main line way and branch line? A. I have taken the cost as shown upon Exhibit N. P. No. 20, for this computation, the cost being 76.5 for main line through trains and—I beg your pardon, Mr. Donnelly, just one minute. I will modify that answer. I have taken, as I did in my testimony, the main line way freight, for the purpose of this computation, as the same cost of 76.5, instead of 92.5 as shown on Mr. Johnson's Exhibit No. 20, and for the same reason stated there.

Q. As 76.5? A. Yes, sir, and branch line as 62.6 cents.

Those cost figures being for two months? A. Yes, sir.

Q. And you have applied to them the lower train loads shown by the figures for the year? A. Yes, sir.

Q. In regard to the method which generally speaking you have adopted in the division of your freight

and passenger expenses. That is a method which is one of your own invention? A. Yes, sir, it is.

Q. It is the same one that you have used in all of the cases that you have testified in, as an expert witness, as stated in answer to one of the preliminary questions. That is, the general underlying principles of it is the same? A. Yes, sir, there are certain variations with regard to—we may say, more detail being obtained regarding the movement of the traffic under certain operating expenses, where it has been varied slightly. The variation would be quite slight. I will state in this connection, too, that in the case of the examination of the Louisville & Nashville, for the state of Florida, I discarded, in that investigation, the weather stress, and adopted the weights as the division of all of the expenses, the principal reason for that being that the percentages of earnings and weights were very close, and that the difference would be practically none in the final alignment, and that at that time I had under serious consideration whether or not I would distinguish between the wear and the weather in making the division and finding this case which was pending at the time and had to be done, I discarded it, and let it go. Also, in the Wheeling & Lake Erie case, where I was pressed for time, and did not have a chance to make up my train weights, I adopted, as a compromise basis, to cover both things the average between train mile percentage and car mile percentage, adding the two passenger and freight percentages together and taking half of it. That was merely a compromise, and in a subsequent investigation of that road before the Interstate Commerce Commission, I adopted the present basis.

Q. And this is the basis which, generally speaking, is the same as the basis which, in your judgment, represents with the most accuracy, the proper method to be pursued, in dividing these expenses and allocating to any particular line of traffic, its proportion of the charge? A. Yes, sir.

Q. After having been developed in any of those cases, has it been adopted in any of the states in which it was explained? A. Yes, sir.

Q. In which ones? A. It was adopted generally by the master in the South Dakota Passenger Rate Case.

Q. I am speaking of the states. I am not speaking of the decisions of cases. Has any state adopted it, or any commission adopted it, or is it recognized in the accounting system of any railroad as being the proper division and allocation of expenses? A. It has not been adopted by any road excepting the Kanawha and Michigan.

Q. What is the mileage of that road? A. I do not know, sir. It has not been officially adopted by any Railroad Commission. The results produced from this have, however, been adopted by the Illinois Railroad Commission in their coal rate cases.

Mr. Donnelly: That is all.

Mr. Young: That is all.

R. TOOMBS,

having been heretofore duly sworn, was recalled for further re-direct examination on behalf of the defendant, the Minneapolis, St. Paul & Sault Ste. Marie Railway company, and testified as follows:

RE-DIRECT EXAMINATION.

By Mr. Dille:

Q. Mr. Toombs, at the adjournment of this hearing during May, and during your examination and cross-examination, you were requested to compile some additional data bearing upon a division of the traffic on the Soo road as between way freight trains and through freight trains. Have you made such compilation, and are you ready to give it? A. I have.

Q. You may give it to us. A. The information previously given was based on an inadequate period, and it resulted roughly in dividing the traffic thirty per cent in way freight trains and seventy per cent in through freight trains, or in the other class of trains. Preparing with great care two complete months to show exactly the relationship, I offer Exhibit No. 43. This shows for each class the train miles, the loaded car miles, the empty car miles, and the gross loaded ton miles, the empty car ton miles, the gross ton miles, loaded and empty, and the net ton miles. The factor or measurement that was used was the net ton miles, and this exhibit, changes the percentage previously equated from thirty per cent to 28.54 per cent, and from seventy per cent for the through trains to 71.46.

(Paper produced by the witness, and marked Defendant's Soo Exhibit No. 43, by the reporter, for identification.)

Q. You may put into the record any statement that you desire relative to this table. A. The intent of the information, as it was asked for, was to determine whether one hundred per cent of the total transportation expenses added to show the relative cost of way

freight train traffic over an average of all was justified. The use of this ratio is shown in Exhibit No. 44. In the former testimony we used the Missouri River Division as illustrative of a strictly way-freight train division, and we used the Thief River Falls Division as a strictly through division. It is found that consolidated into one railroad, with the traffic dividing 28.54 per cent way, and 71.46 per cent through, that it would have required the addition of 142 per cent of the total transportation expenses to make such a line of railroad equal the 98.46 per cent of operation as shown on the Missouri River Division.

Q. You have Exhibit No. 44 there? A. Yes.

(Paper produced, and marked Defendant's Soo Exhibit No. 44 for identification, by the reporter.)

Q. The statements contained in these two exhibits are correct, are they? A. To the best of my knowledge and belief they are. They have been very carefully prepared.

Mr. Dille: The defendant, Soo, offers in evidence Defendant's Soo Exhibit No. 43 and No. 44.

Q. Mr. Little, a witness for the state, testified relative to the rates on the Soo Line, or Road, on stone, and brought into evidence, I believe, Plaintiff's Exhibit No. 49. Will you explain that rate, what it is, and why it was put in effect? A. In Mr. Little's testimony he referred to rates quoted in G. F. D. No. 7923. This tariff is a tariff on field stone and rock in carloads from certain stations in North Dakota to Bismarck only. I find that in a certain group of stations, Arnold to Garrison, inclusive, this tariff makes a rate on stone of forty cents per ton. The rate for the distances from these points on coal would run from thirty-five cents to fifty-five cents, the farther stations

being the only ones in which the rate is less on stone than on coal. In the next group the stations, Magnus to Wishek, the stone rate is forty cents, while from the same stations the coal rate would be from thirty to fifty-five cents. From the balance of the stations named in the tariff the comparison is as follows: From Max, the stone rate is fifty cents, and the coal rate is 59 cents. From Ruso, the stone rate is eighty cents and the coal rate is sixty-four cents. From Dogden, the stone rate is one dollar, and the coal rate sixty-eight cents. From Douglas, the stone rate is eighty cents, and the coal rate sixty-two. From Ryder, the stone rate is eighty cents, and the coal rate is sixty-five cents. From Plaza, the stone rate is one dollar, and the coal rate would be sixty-nine cents. I wish to say, too, that there was practically no movement of stone under the tariff during the year under discussion. The total shipments under that tariff aggregated twenty-two cars, producing a total revenue of 229 dollars, and an average rate per ton of forty cents. The average rate per ton on coal for the same period was forty and eight-tenths cents. This stone tariff was put into effect by both the Soo Line and the Northern Pacific Railroad for a specific purpose. The rock was used for rip-rapping the river at Bismarck, to prevent the river from encroaching, and it was to be moved in one period. The bulk of all of the traffic under that tariff was moved in a period when the river menaced the property of one of the railroads, and other property, at Bismarck. The fact of such a low rate having been made is for the reason of a reciprocal advantage. For instance, the vice president and traffic manager states that anybody who knows the Missouri River will appreciate an element

of contribution in this rate, made by the Soo and the Northern Pacific, to protect both public and private property. Notwithstanding the larger number of rates named in the tariff are very considerably in excess of the rates on coal for similar distances.

Q. Has that rate been in effect on any of the Soo Line excepting on the Missouri River Division? A. No, sir.

Q. Is there anything else in that connection that you would care to mention? A. Nothing, excepting that it was not contemplated in the coal rate that there was any reciprocal advantage, as there was distinctly recognized in the case of the stone rate.

Q. Mr. Little testified relative to the density of traffic on the Soo Line, as compared with that of the Northern Pacific and the Great Northern. I believe you have already testified that sixty-eight per cent, or about that, of the lignite coal moves on the Missouri River Division, and thirty-two per cent on the balance of the road in North Dakota. I wish you would give us such information as you possess relative to the density of the traffic upon the line that carries the other thirty-two per cent, as compared with the Northern Pacific and the Great Northern. A. On the so-called Missouri River Division, the Soo Line handled a traffic in the lignite coal that produced sixty-eight per cent of the road's total earnings on lignite coal, and incidentally, seventy-six per cent of the ton miles made on hauling lignite coal was made on the Missouri River Division. The other thirty-two per cent of the revenue produced from this traffic was earned practically on the so-called Minnesota Division. The Minnesota division is a division of at least as great a density of traffic as the main lines of either the Northern Pacific

or the Great Northern. I have not the relative figures, but I do know that the density of traffic on the Minnesota Division for the Soo Line aggregated closely to 707,922 ton miles per mile of road during this particular year, and I believe that the aggregate of the Northern Pacific—I find from figures that are available that the density of traffic on the Great Northern whole line in North Dakota was 570,000 ton miles per mile of road, and on the Northern Pacific, 505,000 tons per mile of road. This, of course, includes certain of their branch lines that I have not been able to separate, but they must raise their average over two hundred thousand ton miles per mile of road to equal the density that we show on the Minnesota Division.

Q. As I understand you the thirty-two per cent of the lignite coal not carried on the Missouri River Division was carried on the Minnesota Division? A. Practically so, yes, sir, practically all of it.

Q. There has been a good deal of testimony in this case touching the difference in cost in way freight and through freight traffic. I do not desire to ask you to cover the whole ground, but I believe there is one phase of it that bears more or less upon the examination that is to follow this, namely, the relative tonnage of the two kinds of carriage. You may give us your views on that subject. A. You refer to the conditions of loading of way freight trains as compared with through freight trains?

Q. Yes. A. I wish to state that in my opinion the variation in cost when a ton mile is used as a unit of measurement, is not so dependent on the exact cost of running the train as it is in the relative loading of the trains. The fact that a way train, from its character and from the necessities of its business,

handles a limited tonnage, while a through train from its character and the reason for its employment, is for the sole purpose of handling a heavy tonnage. In classifying the trains on the Soo Line, we have measured our freight trains only by the number of trains scheduled as way, deducting only the cancellations of trains. Thus there is, in the other class, many trains that in their nature were perhaps more similar to a way train than they were to a through. Nevertheless, the fact remains that on the way trains used by us and taken from the schedule, we averaged 151.81 tons of paying freight. The other trains, the through trains, the drag trains, the turn-around trains, or turn-abouts, averaged 354.21 tons. Adding all of these trains together, they produced an average loading of 256.61 tons. Many of these trains, however, carried from one thousand to fifteen or eighteen hundred tons. Using a ton mile basis as a measure of cost, a train of 151.81 tons and a train of 354.21 tons make a variation in the cost per ton in favor of the through train of 2.35 times as much per ton cost on the way train as on the through train, and I believe that to be the governing factor instead of the variation of cost of the enginemen, the cost of the trainmen, etc., that the difference to the railroad is in the difference in the number of tons that can be hauled for a given sum of money.

Q. Have you finished all you care to say on that subject? A. Yes, sir.

Q. Mr. Little, in his testimony, has referred to the method of handling lignite coal between Wilton and Bismarck. Please give us that method, and the results of that method with reference to the loaded and empty car miles. A. In Mr. Little's testimony he

claimed that the basis for measuring cost as determined for way freight trains was not applicable to the haul of coal from Wilton to Bismarck, as it was hauled in a through train; that the practice, as it came under his observation, personal observation, was to run a turn-around from Bismarck to Wilton to bring coal from Wilton to Bismarck for further distribution, or for delivery to the Northern Pacific. That is the case in a large number of instances. The result of that turn-around, however, is that the company pays for the purpose of that train, for one hundred miles of service, for a revenue load of 28 miles. The turn-arounds are invariably empty cars from Bismarck to Wilton, and the return is the loaded and revenue, loads, only from Wilton to Bismarck. I therefore claim that for the money expended in running the turn-around through at a cost of one hundred miles, we have but a revenue haul of 28 miles.

Q. The state, through its witness, Mr. Little, has presented a theory or a method of computation whereby he assumes to arrive at the expense of transporting lignite coal, following what he has denominated the Ney Plan, with some changes made by himself. I assume that you have examined into that plan, and have examined the tables and exhibits that he has presented, and arrived at some conclusion as to the accuracy of each, and the applicability of the same to the Soo situation. You may now give, in your own way, your conclusion. A. In Mr. Little's use of the Ney method he goes only so far by that method, as to determine the freight operating expenses. The railway company has already put in evidence two methods of determining that same factor. The one a straight earnings proportion, taking the total operating ex-

penses, and dividing what percentage belongs to North Dakota by the percentage that the earnings of North Dakota bears to the total earnings of the road. The second basis used by the railroad was where we allocated, so far as is practicable, every item of expense to determine, first, the operating expenses for the state of North Dakota; then subdividing that result between freight and other traffic on a revenue basis. The method adopted by the state is a composite of various methods, but the final result of all three methods, averaging them, produces a difference of but $2,458.55 as between the state and the average of the three methods. That sum, in comparison with the total freight expenses would be so insignificant as to have no effect. I should therefore say that either of the three methods, or an average of the three fairly represents, and would be perhaps the best judgment of what the freight operating expenses for North Dakota were. I would like, in connection with this, to say that at the time the railway put their exhibits in evidence, the taxes for the state of North Dakota had not been determined, and we used an estimated basis. The state, in the preparation of their figures used the exact tax paid. The difference is that in the railway company's exhibits the tax was understated $34,939.00, or at least that part of the tax assignable to freight. Statement No. Exhibit No. 44½ gives the results of the three methods of figuring, using the original figures of the two railroad exhibits, but with a note at the bottom that states the amount to be added in order to equalize them with the state's figures.

(Paper produced by witness and marked, for identification, Defendant's Soo Exhibit No. 44½, by the reporter.)

(Witness continues.) I have so far dealt with only that part of your question that relates to the determination of the freight operating expenses. That part of your question relative to the determination, out of that freight operating expenses, of the expenses chargeable to lignite coal I have not as yet dealt with, but will proceed to do so if it is a part of that question.

Q. Yes. A. The state's witness has determined the cost per ton mile—

Q. (Interrupting witness.) In your reference to the state's witness, I suppose you mean Mr. Little, do you not? A. Yes. Has determined a cost per ton mile for movement expenses, variable and unvariable for the entire state. He has also determined a terminal cost per car, and from that a rate per ton mile for the entire state. The earnings of the Soo Line on business into, out of and through the state of North Dakota for the year in question amounted to $2,309,655.78. The coal traffic out of this was $83,670.00, an amount insufficient to affect the costs per ton mile favorably or unfavorably. On the Missouri River division the relationship between the traffic was a total earnings of $398,595.22, of which the coal traffic amounted to $56,993.72, a very appreciable part of the whole. By the use of a general average based on a large business, the lignite coal item becomes hardly visible to the naked eye. The fact of whether it would be profitable or unprofitable would be affected on such average ton mile to a point that would have to be measured by the one one-thousandth part of a mill. The fact that the general business of the railroad on traffic into, out of and through the state of North Dakota was profitable would, of necessity be reflected in a cost price per ton mile showing it to be profitable. If, on all of that

traffic, the railroad had made a profit, the result of his computation could not be shown otherwise than he did make it. It must show a cost that would result in a profit. There is no contention in the case that the general business of the company in North Dakota, or through North Dakota, or out of North Dakota, was unprofitable. I believe it would be a fair assumption to state that it was, in fact, profitable to some extent. Using the converse of this situation, had the entire business into the state, out of the state and through the state of North Dakota been unprofitable, and the lignite coal traffic in North Dakota extremely profitable, the result of an average ton mile cost would have proved the lignite coal traffic to have been unprofitable. Similarly, the fact that the business was profitable would prove that the lignite coal business was profitable. This average cost is arrived at on a line of railroad where the predominating traffic is heavy and through, on which only a fragment of the coal traffic was handled. The thirty-two per cent of the coal traffic that was handled on the main line, which main line traffic contributed of the $2,300,000.00 earnings, by far the major part, would be improper as a measure of cost for the division where we actually handled the bulk of this coal, where the large predominating movement was, as a measurement totally inapplicable, owing to the submergence of the lignite coal traffic, in determining the cost per ton mile, in profitable and other classes of traffic—that so far as measuring the cost on the division where this coal actually moved, I believe it would have been equally just to use the cost per ton mile for freight transported between Buffalo and New York. In other words, there is no relationship. From these facts I argue that for the Soo Line the method adopted

by the witness, Mr. Little, should be applied in its entirety to the exact condition where the predominating movement of this coal traffic was handled. Similarly, if so applied, that division is conceded to be, and is known to be, a way freight train division it relieves us of the necessity of measuring any difference in the cost of one train or the other. They all cost the same. We are relieved from the determination of any arbitrary. The confusing elements that are involved on a traffic on a main line ceases to be of any consideration when dealing with this part of the traffic on this line. On the other hand, the balance of the traffic, thirty-two per cent of the earnings, twenty-four per cent of the ton miles, was handled on a highly congested division, and a division of mixed traffic, in which every consideration that applied to the other lines party to this case, equally applied to that particular traffic so carried on the Soo Line. Mr. Little, in computing his figures, recognizes the fact that the bulk of our lignite coal traffic is handled on the Missouri River Division, and for that reason makes a discrimination against the Soo Line as compared with his allowance to the Northern Pacific and the Great Northern, from the very fact that the traffic of that division is a way freight train traffic, and that it already has stood a portion of any arbitrary. He therefore reduces, for the whole line and that movement, the arbitrary additional cost for his so-called variable expense from one hundred per cent to fifty per cent. I claim that in computing the Missouri River Division, which it is perfectly proper and possible to do, applying exactly Mr. Little's method, that we are entitled to one hundred per cent additional cost of the way freight train traffic on the other thirty-two per cent, the same as was allowed the

Great Northern and the Northern Pacific on the whole of their lines. The exhibits offered by Mr. Little do not bring a final conclusion of cost or profit on the lignite coal traffic. He leaves the question at the point of a profit per ton. Building on his statements to their logical conclusion, I find that the profit of the Soo Line, based on this average cost per ton mile for the whole line was $14,601.48. By the division of this traffic to the operating division on which it was actually handled, and applying exactly Mr. Little's method, it is found that of that portion of the traffic handled on the Missouri River Division, there was a net loss of $4,057.43; that on the other thirty-two per cent handled on the main line, aided by the very cheap operation as developed in our figures, there was a profit of $5,137.72, or a net profit to the railroad on its whole property of $1,080.29, instead of $14,601.48. In that connection, however, the fact of the addition of one hundred per cent of the variable expenses is, in my opinion, not conclusive as being the proper ratio of measurement. In other cases, ratios of percentage higher than that are more than customary. In our Exhibits No. 44, the unit of measurement is determined there to be not one hundred per cent of the variable expense, but one hundred forty-two per cent of the total movement expense. By allowing, however, a rate of one hundred and nineteen per cent, which has been considered in some of the previous testimony here, as the measure of the excess, this $1,080.29 profit is reduced to $603.17. By using the relation claimed by the Northern Pacific in their testimony, two hundred and sixty-eight per cent only of the variable expenses, however, the profit of $1,080.29 is reduced to a loss of

$629.33. By using the figures developed in our Exhibit No. 44½, the measure of loss is $74.41.

The next point I wish to make in respect to the application of Mr. Little's method, is in his elimination from the costs of the excess cost of empty car haulage. His method equalizes the empty car haulage to each and every car. In the testimony given by Mr. Little he stated that he permitted this average to rest as an over-head expense to be divided car per car, for the reason that the haul of empty cars for long distances outside of the state—he named, specifically, Spokane and Seattle, might be charged to a loaded haul of lignite coal for a distance of five miles, from Lehigh to Dickinson on the Northern Pacific Railroad. I do not know how he arrived at his figures for the Northern Pacific. The figures as they were compiled, and are compiled for the Soo Line, are on an entirely different basis. The loaded and empty car mileage used in these calculations, and furnished to the state for their calculations, was the loaded and empty car mileage exclusively within the state of North Dakota. The necessity arose for dividing between lignite coal traffic, on the one hand, and all other traffic on the other hand, of this empty and loaded car mileage within the state. When a shipper places an order for a car to load, he places such order for an empty car. A loaded car is of no value to him. He wishes to place a load in the car. The railroad, to operate at all economically, must furnish him with that car empty with the smallest possible empty mileage with which it can be covered. A train dispatcher who wilfully disregarded such instructions, and who moves empty cars for an order an unnecessarily long distance, naturally would not long remain in his employment. It can therefore be stated

that for every car ordered, the minimum empty car haul precedes it. In the computation that I have made locating empty car haul to the lignite coal, I have made such computation to include only the haul of the train that delivered the empty car at the point of loading. On a single division there may have been two preceding empty movements of that same car. For example: the superintendent of the Missouri River Division orders his cars from the Superintendent of Transportation at Minneapolis. The connecting division out of Minneapolis would be the Minnesota Division. Cars would be gathered to fill the superintendent's orders from the most available points to the Missouri River Division. The distance they would have to be moved in response to that order to the North Dakota Line is not charged in the figures at all. They would be moved and gathered together at Glenwood, on our line. They then would be moved and delivered to the Missouri River Division at the state line, which would be somewheres between Glenwood and Hankinson. The mileage would be computed exactly to the state line. The next move might be an empty movement of that same equipment to Bismarck, to be more available for the orders that the train dispatcher has. That movement would be ignored and charged to other, and not to the lignite coal traffic. The final order from the coal mine would be placed, and a car would be moved in a train that would actually make the empty car delivery at the point it was to be loaded. That mileage, and that mileage only, is what I have charged to the coal traffic. The result of that method throws all questionable movements, or all doubtful empty car movements onto the other traffic. Nevertheless it is found that for each 100 loaded car miles of lignite coal, there is a preceding

empty car movement of 91.98 miles on the Missouri River Division. On other freight on that same division for each 100 loaded car miles there is a preceding empty movement of 37.56 miles. That being increased by all of the subsequent empty car movements prior to the final empty movement, that may have been made by cars actually and finally loaded with lignite coal. In North Dakota, exclusive of the Missouri River Division, for each 100 loaded car miles of lignite coal, there is an empty car haul of 88.59 miles, while in North Dakota, exclusive of the Missouri River Division, on other freight, there is a preceding empty car movement of but 41.9 miles.

(Paper produced by witness, and marked, for identification, Defendants' Soo Exhibit No. 44¾, by the reporter.)

(Witness continues.) Applying this factor, which seems to me to be a most necessary one when a cost per ton mile is used, it results—

Q. (Interrupting witness.) You are referring now, are you, to the Little method? A. I am referring to the use of the Little method for determining the total profit or loss in handling lignite coal traffic, supplemented by a division between the Missouri River Division, and the balance of the state, and again supplemented by the use of the factor of the empty cars, retaining his one hundred per cent additional cost of the variable item. Using this factor, I find his result would be a net loss on the lignite coal traffic, for the Soo Line, of $4,349.00. Figuring such loss as the difference between the gross earnings and the operating expenses and taxes, it is found that in Soo Line Exhibit No. 5, in which we arrived at a conclusion, we computed such loss to be $6,962.09. Therefore the Little basis and

the Railroad basis differ only to the extent of $2,620 odd dollars, when the Little system is applied properly to the exact divisions where the traffic itself was handled, and to the inclusion in the cost of transporting the excess number of empty car miles. This final conclusion is shown on our Exhibit No. 45.

(Paper produced by the witness, and marked, for identification, Defendants' Soo Exhibit No. 45, by the reporter.)

Q. On these various exhibits that you have introduced from time to time, the losses, I believe, are noted in red ink. A. That is notably the case of Exhibits No. 45½ and 45.

Q. They appear on the face of the exhibit as net earnings, and you simply indicate that it is a loss, rather than an earning, by red ink figures? A. Yes, sir, on Exhibit No. 45, and similarly on Exhibit No. 45½.

Q. I suppose that when it comes to printing the record we will have some difficulty in getting the red figures carried into the record, and we will have to make some notations more than that to show what they are.

(Paper produced by the witness, and marked, for identification, Defendants' Soo Exhibit No. 45½, by the reporter.)

Q. You may proceed, Mr. Toombs. A. I used in explanation of Exhibit No. 45—that exhibit shows the net result of Mr. Little's figures computed by me to be a profit of $14,601.48. I also stated that the final conclusion in Mr. Little's testimony was not drawn in dollars and cents. On Exhibit No. 46 I take his figures shown in the testimony given by Mr. Little. His figures ended at the point where he claimed our average

haul per ton of lignite coal was 41.76 tons, that the statutory rate which we should charge on this distance would be fifty miles, or forty-six cents; that the expenses per ton mile for the fifty mile haul was 37.7 cents, leaving the inference that the company's profit per ton was 8.3 cents. Applying this rate to the total tonnage handled would have produced a profit of $17,018.17. The various exhibits offered showed that the company hauled and handled 205,038 tons; that the actual revenue received was $83,670.00. This would produce a rate of 40.8 cents, instead of forty-six cents. The average haul computed in the exhibits to be 41.76 miles, he applies his expense for a fifty-mile haul. This is unnecessary, as the total of his expense for the actual traffic haul 41.76 miles would produce a cost per ton of 33.68 cents per ton, or a net profit of 7.12 cents instead of 8.3 cents. The 205,038 tons at a profit of 7.12 cents would produce the figure that I used in connection with Exhibit No. 45, namely $14,601.48. His statement leaves the inference that we actually earned, net, $2,601.69 more than that, which would be impossible to do from his own method of figuring.

Q. Before you file that exhibit, Mr. Toombs, I want to call your attention to the note at the bottom of it. A. The note is placed at the bottom of this to explain the resulting error in Mr. Little's computation. He used, for the purpose of determining the company's revenue, the statutory rate for the nearest number of miles that our average haul produced. He ignores, by that method, the fact that 69,541 tons, or thirty-four per cent of the total tons was hauled from Wilton to Bismarck and delivered to the Northern Pacific Railway Company for a total revenue of $19,465.68, or a

rate of 29.3 cents per ton, instead of forty cents per ton that he has computed it.

(Papers produced by the witness, and marked, for identification, Defendants' Soo Exhibit No. 46, by the reporter.)

(Witness continues.) The fact that there is such an extreme variation in the cost of operation on the Missouri River Division where the large predominating movement of this traffic was handled, as compared with the balance of the state, is expressed in an exhibit which makes a comparison of the various methods used in determining the cost. It will be noted that in this statement the terminal cost per car on the Missouri River Division is very much less than the figure used by Mr. Little in his average cost for the state. Of necessity so! The terminal expenses, themselves, on this division, are comparatively insignificant. It could not be otherwise. The terminal cost per ton on lignite coal, therefore, for the division, is but 7.71 cents, as against the state's figure of 13.75 per cent when averaged for the whole state. The unvariable cost per gross ton mile operates exactly in the opposite way, the cost allotted to the traffic of that division, bringing the average up to very nearly double what the same computation makes for the whole state considered and treated as a whole. The unvariable cost per gross ton mile similarly is affected, and the unvariable cost per ton mile of lignite which is, on the Missouri River Division, .5118, and the figures used in the state, .28188, the balance of the state, showing the reasonableness of the fact that the cost there is similar to the costs given by the state. The fact that the Missouri River Division traffic was too insignificant to change, materially, when eliminated, the figures produced by

the state for the general average shows that. It should be again, perhaps, recalled, that in using these figures for the Missouri River Division, no arbitrary whatever is considered, but where we have used these figures for the balance of the line, we have asked for the same concession that has been given to other lines of railway where the traffic conditions are similar.

(Paper produced by witness, and marked, for identification, Defendants' Soo Exhibit No. 47 by the reporter.)

(Witness continues.) Exhibit No. 48 is offered primarily to furnish the state the opportunity to re-compute the factor of the empty car haul.

(Paper produced and marked, for identification, Defendants' Soo Exhibit No. 48, by the reporter. Paper also produced and marked Defendants' Soo Exhibit No. 49.)

(Witness continuing.) In the use of the state's figures, no criticism is made beyond the fact of the omission of the empty car factor and the application of his results from a general computation of the state, applying it to the division on which the bulk of the lignite coal was carried, and while we have not raised any serious question as to the addition of the one hundred per cent for the determining of the way freight train arbitrary to the certain variable expenses selected as variable, the fact that such addition does not produce a reasonable result I believe can be further demonstrated. For the purpose of doing so, I have prepared Exhibit No. 49, which takes the entire traffic of the Soo Line in the state of North Dakota and shows what the result of such operation would be if handled exclusively in through trains, and what the percentage of excess cost of the way over the through would be.

It is found that taking the operating expenses and taxes as determined by the state—

Q. (Interrupting witness.) You are now referring to what exhibit? A. To Exhibit No. 49. $1,691,-606.74; if entirely handled in way freight trains, such cost would be $2,858,603.28, while if handled exclusively in through trains, that cost would be but $1,225,-488.94. The total revenue of the railroad in the state of North Dakota was $2,309,655.78, which, if handled in local way freight trains, would produce a net deficit of $548,947.50, and if handled exclusively in through freight trains, a net profit of $1,084,166.84. If handled all way freight, it would have taken 1,645,495 train miles, while if handled in through, it could be done with 705,427 train miles; that is, the percentage of excess cost of way freight over through was 133.26 per cent. Exhibits No. 50, 51, 52 and 53 are offered to provide the state, if they require, with the data on which to separate the Missouri River Division and the balance of North Dakota for the purposes of treating the traffic as it was handled under these two subdivisions, and which figures the state has not heretofore had in their possession.

There is one other point that might be mentioned, as to the inadequacy of the result of the state's figures when figured out to a question of dollars and cents. Their final result shows that the difference in costs as between way and through trains traffic is but 9.28 per cent in final results on the earnings of each class. That percentage does not appeal to the mind of any reasonable person as being a reasonable variation in the cost.

Q. Mr. Toombs, I assume that the data and facts stated in these several exhibits, are accurate and correct, so nearly as you could have them made? A. To

the best of my knowledge and belief, they are accurate. They are compiled from exact records of the company, by very careful computations.

Mr. Dille: The Soo, defendant, offers in evidence Exhibits No. 43 to 53, inclusive, which, I assume, includes 44½, 44¾ and 45½. I think that is all.

RE-CROSS-EXAMINATION.

By Mr. Young:

Q. Mr. Toombs, can you give us the tonnage of the turn-around trains that handle the lignite traffic from Wilton to Bismarck? You testified that it was a turn-around haul there, largely, in which there was only twenty-eight miles of revenue haul. A. Yes.

Q. Now, can you give us the revenue tonnage? A. Why, I presume it may be compiled. You would have to select the distinct trains that made that turn-around. Mr. Little testified that he had personal knowledge by examining the local records at Bismarck, of that fact. I have not that personal knowledge, as I have not made that investigation.

Q. You would not be able to give us figures at this time? A. No, sir.

Q. Now, as I understand your testimony, you have found that the local or way trains cost 2.35 times the through? A. I found that in the tons hauled, the through trains carried 2.35 times as much tons as the way freight trains did, but in the calculation as to the division of the traffic between way and a general average of trains, I found, as stated in Exhibit No. 44, 142 per cent of the total transportation expense, rather than of the variable transportation expense.

Q. Did you have that in Exhibit No. 49? You did

determine the percentage there, did you not? A. In Exhibit No. 49, the percentage of excess cost of handling the entire traffic of the Soo Line in way freight trains, over through freight trains, was 133.26 per cent.

Mr. Young: That is all.

Mr. Miller: I would like to hold the case over, or, at least, this branch of the case, until I submit a copy of Mr. Toomb's testimony and exhibits, and his deduction to Mr. Little.

To which all parties assented.

G. A. GOODELL,

a witness on behalf of the defendant, the Northern Pacific Railway Company, was called, duly sworn, and testified as follows:

DIRECT EXAMINATION.

By Mr. Donnelly:

Q. You are the general manager of the Northern Pacific Railway Company, Mr. Goodell? A. Yes, sir.

Q. In charge of its operation? A. Yes, sir.

Q. It has developed in the testimony in this case, Mr. Goodell, that the cost per train mile for the transportation expenses, or the main portion of the transportation expenses of our trains in North Dakota for the months of November, 1910, and April, 1911, taken as representative months, was sixteen cents in excess of the cost per train mile for the operation of main line through trains. To what, as an operating man, do you ascribe that excess cost? A. There is a portion of that that is due to the increased wages that we pay to the employes on the local trains, and a portion that is due

to the increased time and work necessary on the local train as compared to the through trains.

Q. And why is there increased time on a local train as compared to the through trains? Why is its movement over the track slower than a through train? A. It is obliged to stop at every station and do the necessary local and intermediate work that there is attached to the business of that station, whereas the through train is simply required to pass over the road, from one terminal to the other, and to handle the business that goes through.

Q. Of what does that work consist? A. At the stations?

Q. Yes. A. The unloading of the way freight merchandise and doing the necessary switching at the stations, placing the cars to the industries and on the various team tracks.

Q. How does the time occupied in doing switching compare with the time occupied in loading L. C. L. freight? A. I should say that the time consumed in switching probably consumes—I should make an estimate of about twice the amount of time required for the unloading of the merchandise, taking the run as a whole. That does not apply to each station, but over all I should say that twice as much of the time of the way freight train is consumed in doing station switching than there is used in doing the unloading of the merchandise.

Q. Is that true more notably of any particular months than any others? A. Which is?

Q. Is that true all the year around? A. It is true more particularly of different months.

Q. Which months? A. The amount of way freight to be handled, and the amount of switching to be done

will be less during the summer months, say from early in May until the time the grain begins to move, which ordinarily is in September.

Q. And during the months from September until the end of the year, and from January until the beginning of May, the proportion of the time consumed in switching to the time consumed in the delivery of L. C. L. freight is greater than during the summer months? A. Yes, sir.

Mr. Donnelly: That is all. You may cross-examine.

CROSS-EXAMINATION.

By Mr. Miller:

Q. Have you any memoranda or record in your office, Mr. Goodell, that will advise you as to the relative length of time used in switching at various stations along the line, as compared with unloading L. C. L. freight? A. No, sir.

Q. Have you any knowledge on the matter, specially from personal observation? A. No, sir.

Mr. Miller: That is all.

Mr. Donnelly: That is all.

Adjournment was then taken until July 20, 1912, by consent of the parties.

The hearings having been resumed at 10:00 o'clock A. M., July 20, 1912, in the offices of the Soo Railway Company, in the City of Minneapolis, State of Minnesota, pursuant to adjournment taken, and under the stipulations as to the manner of conducting the hearings heretofore made and entered into by and between the parties hereto.

Present: Assistant Attorney General, C. L. Young, of Bismarck, N. D., appearing on behalf of the State of North Dakota.

Present: John L. Erdall and John I. Dille, appearing for the purposes of this session, on behalf of the several defendant railway companies.

The following proceedings were had:

W. J. BUCHANAN,

a witness on behalf of the defendant, the Minneapolis, St. Paul & Sault Ste. Marie Railway Company, having been hereto duly sworn, was recalled, and testified as follows:

EXAMINATION.

By Mr. Dille:

Q. Mr. Buchanan, you have testified in this case at the previous hearing? A. Yes, sir.

Q. Mr. R. Toombs, auditor, who testified at the last hearing, I believe is away on a vacation? A. Yes, sir.

Q. And will not be back for some thirty days? A. Thirty days.

Q. At page 7 of his last testimony, at the bottom, appears the following: (Note. Reference is to page number at top of page of original record. Reporter.) "The result of that turn-around, however, is that the company pays, for the purpose of that train, for one hundred miles of service for a revenue load of 28 miles. The turn-arounds are invariably empty cars from Bismarck to Wilton, and the return is the loaded and revenue, or that, only from Wilton to Bismarck. I therefore claim that for the money expended in running the turn-around through at a cost of one hundred miles,

we have but a revenue haul of 28 miles." Mr. Toombs failed to explain why there would be a cost of one hundred miles. Can you explain why that would be? A. Yes.

Q. You may do so. A. When a train crew is called to go out on a run they are paid a minimum of one hundred miles a day, regardless of whether they run ten miles or a hundred. So the turn-around crew called to run from Bismarck to Wilton and return would make the 58 miles for the day, but they would turn in a time slip for one hundred miles.

CROSS-EXAMINATION.

By Mr. Young:

Q. Is one of those turn-around trips all that the crew makes in a day? A. In most cases that is all that is made.

Q. There are times when they make two trips? A. No, not two trips. They might possibly run a train beyond to Max, and back, and pick up loads coming back, but that is unusual for the reason that they have a regular train running from Bismarck to Max.

Q. Where they make one of the turn-around trips, they do not do anything except haul the empties to Wilton and the loaded cars back? A. That is all they do.

Q. They could make two trips in a day? A. They could if the business was there for them to do.

Q. Do you know whether, as a matter of fact, only one of those trips is made? A. I checked a long period, and found that one hundred miles—that it was rarely the case that more than one turn-around was run in a day. As a matter of fact, the volume of

coal moved shows that there is not more than one load for one train a day.

Q. The company does not keep a crew for the purpose alone? A. No. That train works on the principle of first in, first out.

Q. Don't they sometimes load a sufficient number of cars to make two train loads there before any of them are moved? A. There may be, possibly, a case of that kind, but in conducting this business, I think thirty-five cars is the usual load moved.

Q. That would make one or two train loads? A. One train.

Mr. Young: I guess that is all.

(Books are here produced, and marked Plaintiff's Exhibit No. 56, Plaintiff's Exhibit No. 57 and Plaintiff's Exhibit No. 58, by the reporter, for identification.)

The following stipulation was then entered into:

It is stipulated and agreed, by and between the parties herein, that Plaintiff's Exhibit No. 56 is the annual report made by the Soo Railway Company to the Board of Railroad Commissioners of the State of North Dakota, for the year ending June 30, 1911.

By Mr. Young:

The plaintiff offers in evidence Pages 45, 63, 64 and 65, 93-a, and 95-a, of Plaintiff's Exhibit No. 56.

The following stipulation was then made and entered into between the respective parties:

It is stipulated and agreed by and between the State of North Dakota, and the defendant, the Minneapolis, St. Paul & Sault Ste. Marie Railway Company, that should the said defendant, the Minneapolis, St. Paul & Sault Ste. Marie Railway Company conclude, at the

time the record is printed, that other portions of said report have some bearing, and should be considered with the portions of the record offered in evidence by the plaintiff, that such portions may be printed in the record and be treated and considered as part thereof.

Pages 45, 63, 64 and 65, 93-a and 95-a, of Plaintiff's Exhibit No. 57 was then offered in evidence by the counsel for the Plaintiff, and the following stipulation in relation thereto entered into.

It is stipulated and agreed by and between the parties hereto, that Plaintiff's Exhibit No. 57 is the annual report made by the Northern Pacific Railway Company to the Board of Railway Comissioners of the State of North Dakota, for the year ending June 30, 1911.

It is further stipulated and agreed by and between the State of North Dakota, and the defendant, the Northern Pacific Railway Company, that should the said defendant, the Northern Pacific Railway Company, conclude, at the time the record is printed, that other portions of said report have some bearing and should be considered with the portions of the record offered in evidence by the plaintiff, that such portions may be printed in the record, and treated and considered as a part thereof.

Counsel for the State of North Dakota then offered in evidence pages 45, 63, 64 and 65, 93-a and 95-a, of Plaintiff's Exhibit No. 58, and the following stipulations were then entered into in relation thereto:

It is stipulated and agreed by and between the parties hereto that Plaintiff's Exhibit No. 58 is the annual report made by the Great Northern Railway Company to the Board of Railroad Commissioners of the State of North Dakota, for the year ending June 30, 1911:

It is further stipulated and agreed by and between the State of North Dakota and the defendant the Great Northern Railway Company, that should the said defendant, the Great Northern Railway Company, conclude, at the time the record is printed, that other portions of said report have some bearing and should be considered with the portions of the record offered in evidence by the plaintiff, that such portions may be printed in the record, and treated and considered as a part thereof.

Both parties then rested, and the hearing was adjourned.

Office Supreme Court,
FILED
OCT 5 1914
JAMES D. MAHER
Clerk

Supreme Court of the United States

OCTOBER TERM, 1913.

[redacted]

NORTHERN PACIFIC RAILWAY COMPANY,
Plaintiff in Error.

vs.

STATE OF NORTH DAKOTA, EX REL
T. F. McCUE, ATTORNEY GENERAL.
Defendant in Error.

BRIEF FOR DEFENDANT IN ERROR.

ANDREW MILLER,
Attorney General.

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JOHN CARMODY,
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Attorneys for the State of North Dakota.

SUBJECT INDEX.

	Page
Argument	5
Coal Business Negligible in Volume	61
Commodity Affected of Low Grade	26
Conditions Peculiar to Soo Road	68
Confiscation not Established	82
Cost of Service not Shown	72
Intrastate Business as Whole Productive	26
Public Policy Declared by Act	42
Rate Involved on Single Commodity Only	78
Revenues Derived Excell Actual Outlay	38
Summary	82
Statement	1
Value of Property not Shown	61

TABLE OF CASES.

	Page
American Central Insurance Company v. Chicago & Alton Ry. Co. 74 Mo. App. 89	30
Atlantic C. L. R. Co. v. N. Car. Corporation Com. 206 U. S. 1; 51 L. ed. 933	55, 18, 21
Arkansas Rate Cases, 168 Fed. 730; 187 Fed. 307	21, 82
Budd v. New York 117 N. Y. 1; 621 5 L. R. A. 559	48, 50
Camfield v. U. S. 167 U. S. 518; 42 L. ed. 260	51
Central Yellow Pine Association v. Ill. C. R. Co. 10 I. C. R. 537	79
Colorado F. & I. Co. v. S. P. Ry. 6 I. C. C. R. 489	34
Cox Bros. & Co. v. Lehigh Valley Ry. 4 I. C. C. R. 535	32
Covington & L. T. Ry. Co. v. Sandford, 164 U. S. 578; 41 L. ed. 560	10, 46
Dennison Light & Power Co. v. Mo. Kans. & Tex. Ry. Co. 10 I. C. C. R. 337	32
Gladson v. Minn. 166 U. S. 427; 41 L. ed. 1065	52
Great Northern Ry. Co. v. Chicago M. & St. P. Ry. Co. 5 I. C. C. R. 571	60

Page

Hayes v. Ry. Co. 12 Fed. 309 30

Interstate Commerce Com. v. Chicago & G. Western, 52 L. ed. 705. Same case 141 Fed. 1015 ..... 34, 29

Interstate Commerce Com. v. Stickney, 215 U. S. 98; 54 L. ed. 112 25

Interstate Commerce Com. v. U. P. Ry. Co. 222 U. S. 541; 56 L. ed. 308 23

Interstate Consol. Street Ry. Co. v. Mass., 207 U. S. 79; 52 L. ed. 115 ..... 16, 56

Jacobson v. Wis. M. & P. Ry. Co. 71 Minn. 519; 49 L. R. A. 389; 74 N. W. 893 22

Kansas City Ry. Co. v. Carl; 227 U. S. 638; 57 L. ed. 683 29

Knott v. C. B. & Q. Ry. Co. 230 U. S. 499; 57 L. ed. 1591 62

Lake Shore & M. S. R. Co. v. Ohio, 173 U. S. 292 50

Louisville & Nashville Coal & Coke cases, 26 I. C. C. R. 20 40

Louisville E. & St. L. Cor. Co. v. Wilson, 132 Ind. 517; 32 N. E. 311 30

Louisville & Nashville Ry. Co. v. Commission 208 Fed. 41 ..... 67, 78

M. & St. P. Ry. Co. v. Tompkins, 176 U. S. 173; 44 L. ed. 420 82

Mo. K. & T. Ry. Co. v. Interstate Commerce Com. 164 Fed. 645 25

Mpls. & St. L. Ry. Co. v. Minn. 186 U. S. 268; 46 L. ed. 1158 ..... 42, 17, 15, 9

Matthews v. Bd. of Corp. Com. 106 Fed. 7 20

Minn. Rate Cases, 230 U. S. 352; 57 L. ed. 1151 ..... 63, 72

Munn v. Ill. 94 U. S. 113; 24 L. ed. 77 48

Matter of Investigation, etc., 22 I. C. C. R. 604 .. 35

McLean v. Arkansas, 211 U. S. 539 ..... 58, 61

Noble State Bank v. Haskell, 219 U. S. 112; 55 L. ed. 116 51

Page

Northern Pac. Ry. Co. v. State, 216 U. S. 579; 54 L. ed. 624 72

Pennsylvania Ry. Co. v. Phil. County, 220 Pa. 100; 68 Atl. 678 25

People ex rel Cantrell, v. St. L. A. & T. H. Co. 176 Ill. 512; 35 L. R. A. 656, 52 N. E. 292 .. 22

Quong Wing v. Kirkendall, 223 U. S. 62 59

Reagan v. Farmers Loan & Trust Co. 154 U. S. 362; 38 L. ed. 1014 ..... 12, 69

San Diego Land & Town Co. v. Natl. City, 174 U. S. 757; 43 L. ed. 1161 12

San Diego Land & Town Co. v. Jaspar, 189 U. S. 439; 47 L. ed. 892 71

Simpson v. Shepard, 230 U. S. 352; 57 L. ed. 1151 ..... 62, 64, 72

Schumacher Milling Co. v. Chic. R. I. & P. R. Ry. 6 I. C. C. R. 66 29

Seaboard Airline Co. v. Fla. 203 U. S. 261; 51 L. ed. 175 72

St. L. etc. v. Gill, 156 U. S. 649; 39 L. ed. 567 .. 22, 14

Southern Ry. Co. v. Atl. Stoveworks, 128 Ga. 223; 57 S. E. 429 22

Southern Ry. Co. v. McNeill, 155 Fed. 756 21

State ex rel McCue, v. N. P. Ry. Co. 19 N. D. 45; 120 N. W. 869 22

Smyth v. Ames, 169 U. S. 466; 42 L. ed. 842 ..... 8, 9, 13, 46, 56, 64, 79

State ex rel Taylor v. Mo. P. Ry. Co. 76 Kans. 467; 92 Pac. 606 22

Tift v. So. Ry. Co. 138 Fed. 264 ..... 30, 32

Trades League of Phil. v. Phil. etc. 8 I. C. C. R. 368 30

Thurber v. N. Y. Co. 3 I. C. C. R. 473 81

Wis. M. & P. R. Co. v. Jacobson, 179 U. S. 287; 45 L. ed. 194 54

Wilcox v. Consol. Gas Co. 212 U. S. 19, 53 L. ed. 318 ..... 17, 67

Supreme Court of the United States

NORTHERN PACIFIC RAILWAY COMPANY,
Plaintiff in Error.

vs.

STATE OF NORTH DAKOTA, EX REL
T. F. McCUE, ATTORNEY GENERAL.
Defendant in Error.

STATEMENT.

The state court made certain findings of fact, the character of which is indicated in the language of the court as follows:

> "Separate findings are made as to each carrier. Instead of formulating the usual ultimate findings of fact we have made them evidentiary as well." Transcript, Vol. I, p. 7).

As these findings must be gathered from the entire opinion it is deemed desirable here to bring the salient points together to the end that the conclusions of the court may be readily and correctly interpreted. From a review of the decision insofar as it relates to the Soo road it is apparent that the court found facts as follows:

1. That the proof offered and submitted by this company was lacking in essential data or factors neces-

sary to a satisfactory computation by the court as to the cost of service rendered to lignite coal, and on the whole entirely inadequate to establish the cost of carrying lignite coal with the clarity and certainty requisite in a case of this character. (Transcript, Vol. I, pp. 19 and 20).

2. The loss of from $9,000 to $12,000 represents in large measure the difference between the amount received for carrying the coal and the amount which it would have received had the coal been delivered to purchasers at Bismarck without pro-rating with connecting carriers. It is not a determination in dollars and cents representing the difference between the cost of handling the traffic and the revenue derived therefrom, but a figure arrived at by the court largely from extraneous sources, namely, evidence and statistics furnished by the other defendant carriers and comparisons and estimates based thereon.

3. Where the results on other divisions are considered, the loss, so-called, which contributes to the total mentioned by the court, is found, not by taking from the total amount received the certainly deduced cost of transportation, but by taking the amount received from what would have been earned had there been no pro-rating with connecting carriers. (Transcript, Vol. I, p. 26). In other words the loss, so-called, is derived by subtracting what the road had remaining after dividing receipts with connecting carriers on a pro-rating basis from what it would have earned under the statutory rates prescribed had the coal been shipped to the connecting point, *at the rate for that point*, rath-

er than by finding that the actual cost of the services rendered in the lignite traffic in fact exceeded the amount actually derived from that traffic. (Transcript, Vol. I, pp. 21, 23, 25, 26, 27, 28, 34 and 35). Therefore the loss, as we have indicated, is traced, not to the insufficiency of the statutory rate, but to the prorating feature of the statute. In fact this is called the teeth of the statute. (Transcript, Vol. I, p. 35).

4. It is true that at p. 23, Transcript, Vol. I, there appears to be a cost deduction. However, it is based upon assumptions and arbitrary factors to such an extent that it cannot be looked upon as an accurate cost analysis and does not seem to be treated as such by the court.

5. That about three-fourths of the lignite traffic handled by this road is handled on the Missouri River division under conditions which are abnormal in this: a. This division is unusually expensive in operation and less remunerative generally than any of the other divisions of that road. (Transcript, Vol I, p. 21). b. It is further unusual and abnormal in that a very large percentage of the coal carried on that division is delivered to connecting carriers. (Transcript, Vol. I, pp. 21-25, 27, 34 and 35).

6. The only well-defined finding of fact covering the relation between the actual expense of hauling lignite coal and the statutory rate is the one to the effect that the carriage of lignite coal increases the carrier's expenses but 60 per cent of the usual statutory rate for the lignite haul. That is, but 60 per cent of the full statutory rate al-

lowed is required to defray the out-of-pocket costs, or the amount actually or necessarily expended because of the lignite haul, while any expense in excess of these apportioned to the lignite traffic are fixed charges or railroad expenses that would have accrued had no lignite coal been transported. Hence all receipts from this traffic in excess of the out-of-pocket costs contribute toward payment of fixed expenses of the railroad that would have existed without the lignite freight movement and would have been borne by other freight instead of by lignite to the amount that it has contributed to their payment. (Transcript Vol. I, pp. 34 and 35). Thus, the court finds that the revenue derived under the statutory rates pays all expenses actually and directly incurred by reason of the lignite traffic while from 30 to 40 per cent of it remains to be applied upon the general expenses of the railroad which would have accrued had there been no lignite traffic whatever. To this extent therefore it is found that the revenues lighten the burden which would otherwise be borne by other freight.

7. That this railroad has not established the value of its property within the state of North Dakota properly assignable to its intrastate business, nor has it offered any evidence of the value of that part of its property justly assignable to the lignite coal traffic. (Transcript Vol. I, pp. 34, 42, 44-49).

8. That the road has failed to show by competent evidence that there is a net loss or an insufficient return on its intrastate business as a whole. (Transcript, Vol. I, p. 42). Nor is there anything to show, if there

was a loss in that business or an insufficient return therefrom, that it was materially contributed to by the carriage of this one commodity.

Concerning the traffic on the Northern Pacific road the findings appear to be:

1. That the net earnings from the lignite business for the period in question were $847.61 out of aggregate earnings amounting to $58,953.07. (Transcript, Vol. I, p. 33).

2. That no proof was submitted as to the value of the railroad property employed in producing the intrastate earnings of the company. (Transcript, Vol. I, p. 43.) Nor as to the value of the property employed to produce the lignite earnings. (Transcript, Vol. I, p. 44).

And generally it is found that the statute prescribing these rates is a declaration by the state of a public policy intended to encourage industry and commerce and to promote the general well-being and public good. (Transcript, Vol. I, p. 36).

ARGUMENT.

The argument in behalf of the plaintiffs in error proceeds upon the assumption that the decision of the court is rested solely upon the doctrine that before a state-made rate can be held confiscatory it must be shown not only that it is in itself non-compensatory but that its effect is to make non-compensatory the entire intrastate business of the carrier.

The scope of such a rule furnishes an inviting field for debate and argument in these cases, but if so broad

a rule was announced by the state court it is not the rule which was actually applied.

The state court in its opinion adheres to the rule announced in these cases upon the former hearing, 19 N. D. 45, 120 N. W. 869, in the following language:

> "The proper test as to whether the rates thus fixed are reasonable or unreasonable is not whether the rate fixed on the particular commodity is sufficiently high to enable the carrier to earn a fair compensation after allowing for the legitimate cost to the carrier of transporting the same, but whether under such rates it will be enabled from its total freight receipts from all its intrastate traffic to earn a sum above operating expenses, reasonably necessary for such traffic, sufficient to yield a fair and reasonable profit upon its investment."

This does not amount to saying that a carrier may be compelled to carry a commodity at a rate so low that the actual outlay incident to the carriage exceeds the amount of revenue derived therefrom. In fact it is expressly stated in the same opinion that it is unnecessary to decide whether a rate upon a special commodity is invalid when it is so low as to entail a positive loss to the carrier insofar as the transportation of the commodity is concerned. It does not announce either expressly or by implication that the police power is unbridled and without limitations. The view of the carriers in these cases appears to be that since the carrier is ordinarily entitled to a reasonable profit upon its entire intrastate business it is likewise entitled to a like

profit upon each service rendered. This is virtually saying that the right to profit upon each service performed or each commodity carried is *property* within the meaning of the Fourteenth Amendment to the Constitution. Hence every rate which is not compensatory would, by virtue of that rule, be confiscatory, and the test of compensation would be the margin of profit to which the carrier is entitled upon its business as a whole. In this way if a commodity is carried without any margin of profit whatever, or if, as in the Northern Pacific case, there is a margin of profit which is assumed to be less than upon the business as a whole, the rate would be deemed non-compensatory and ipso facto confiscatory. This makes non-compensatory rates, under all circumstances, unreasonable and confiscatory.

The contention of the state is that the rule is not iron-clad and inelastic; that a non-compensatory rate is not necessarily confiscatory; that there may be, and there are, circumstances under which a rate which does not yield a profit or which returns a margin of profit less than is returned by the business as a whole, may yet be reasonable in view of all the surrounding circumstances. And a material consideration favorable to the validity of such a rate is that mentioned by the state court, viz.: that the entire intrastate business yields a fair and reasonable profit upon the investment devoted thereto.

It may be that a rate which does not yield a profit, or which produces a lower return than that received from the business as a whole, in certain cases, would

be confiscatory. This, however, depends upon the attendant facts and conditions existing in each case. In other words, the rule is elastic. It may be that a carrier may claim a right to a rate on each commodity sufficiently high, considering the character of the commodity and the service rendered, to protect against positive or actual loss. Concededly the power to regulate is not unlimited. The same is true of the right to a profitable return upon an investment. It has never been held by this Court so far as we are able to find, that a rate for a service which will produce a return lower than is returned generally upon an entire business is necessarily unreasonable, nor that it is unreasonable because it returns no profit whatever.

It is true that in *Smyth vs. Ames*, 169 *U. S.* 466, the general proposition is laid down that railroads are entitled to a fair return upon the capital invested, but it is not held that this is an unqualified right. On the contrary the Court announces in the same opinion that the public is entitled to demand that no more be exacted from it for the use of a public highway than the services rendered by the highway are reasonably worth That is to say, the right to profit is a contingent right. Rates made by legislative authority should afford a profit. There are, however, considerations paramount to the claim which stockholders have to dividends. Consequently rates, under certain circumstances and conditions, may be valid though they afford no profit whatever. Cases may readily be conceived where this is true even of an entire schedule of rates. The percentage of return is therefore not the sole criterion by

which to measure the reasonableness of a rate. The very character of the business of a railroad is such that it necessarily must submit itself to interferences and regulations which the interests of the public require, for the property devoted to this business is not private in the strictest sense. This fact underlies the whole principle of rate regulation and compels, as a test of the reasonableness of a rate, not alone the amount of profit with which the carrier is rewarded but also the value of the service rendered. That is, the rights of the public in an investment of this kind are to be weighed with the rights of the owner of the property involved. And this Court has gone so far as to say that, "the rights of the public would be ignored if rates for the transportation of persons or property on a railroad are exacted without reference to the fair value of the property used for the public, or the fair value of the services rendered, but in order simply that the corporation may meet operating expenses, pay the interest on its obligations, and declare a dividend to stockholders."

Smyth v. Ames, 169 U. S. 544; 42 L. ed. 842.

In *Mpls. & St. L. Ry. Co. vs. Minn.* 186 U. S. 268; 46 L. ed. 1158, it clearly appears that if the railroad cannot earn a fair return upon the value of that which it employs for the public convenience without at the same time burdening the public with exorbitant rates the right to earn dividends must give way to the paramount right of the public to have its service rendered for what it is reasonably worth.

The question was considered in *Covington & L.*

Turnpike Road Co. v. Sanford, 164 *U. S.* 578, 596, 597; 41 *L. ed.* 560, 567, where it was said:

"When the question arises whether the legislature has exceeded its constitutional power in prescribing rates to be charged by a corporation controlling a public highway, stockholders are not the only persons whose rights or interests are to be considered. The rights of the public are not to be ignored. It is alleged here that the rates prescribed are unreasonable and unjust to the company and its stockholders. But that involves an inquiry as to what is reasonable and just for the public. If the establishing of new lines of transportation should cause a diminution in the number of those who need to use a turnpike road and, consequently, a diminution in the tolls collected, that is not, in itself, a sufficient reason why the corporation, operating the road, should be allowed to maintain rates that would be unjust to those who must or do use its property. The public cannot properly be subjected to unreasonable rates in order simply that stockholders may earn dividends. The legislature has the authority in every case, where its power has not been restrained by contract, to proceed upon the ground that the public may not rightfully be required to submit to unreasonable exactions for the use of a public highway established and maintained under legislative authority. If a corporation cannot maintain such a highway and earn dividends for stockholders, it is a misfortune for it and them

which the Constitution does not require to be remedied by imposing unjust burdens upon the public. So that the right of the public to use the plaintiff's turnpike upon payment of such tolls as, in view of the nature and value of the service rendered by the company, are reasonable, is an element in the general inquiry whether the rates established by law are unjust and unreasonable. That inquiry also involves other considerations, such, for instance, as the reasonable cost of maintaining the road in good condition for public use, and the amount that may have been really and necessarily invested in the enterprise. In short, each case must depend upon its special facts; and when a court, without assuming itself to prescribe rates, is required to determine whether the rates prescribed by the legislature for a corporation controlling a public highway are, as an entirety, so unjust as to destroy the value of its property for all the purposes for which it was acquired, its duty is to take into consideration the interests both of the public and of the owner of the property, together with all other circumstances that are fairly to be considered in determining whether the legislature has, under the guise of regulating rates, exceeded its constitutional authority, and practically deprived the owner of the property without due process of law. What those other circumstances may be, it is not necessary now to decide. That can be best done after the parties have made their proofs."

In *Reagan v. Farmers Loan & Trust Co.* 154 U. S. 362, 412; 38 L. ed. 1014, 1028, this language was used:

> "It is unnecessary to decide, and we do not wish to be understood as laying down as an absolute rule that in every case a failure to produce some profit to those who have invested some money in the building of a road is conclusive that the tariff is unjust and unreasonable."

Such was the view taken in *San Diego Land & Town Co. v. National City*, 174 U. S. 757; 43 L. ed. 1161.

It is therefore manifest that a public service corporation may not as a matter of right lay absolute claim to a profit from the conduct of its business. A profit is guaranteed only when its return is consistent with justice to the public. Whether it is a property right depends upon the facts in each case. If a reasonable rate does not secure an adequate return upon the investment that is a "misfortune" "which the Constitution does not require to be remedied by imposing unjust burdens upon the public." This means, that though rates under which a carrier is operating are not compensatory it does not follow inevitably that they are confiscatory. If reasonable in the light of all considerations bearing upon them they may then be reasonable though not remunerative.

Such is the rule announced in *Smyth v. Ames* and *Reagan v. Farmers Loan & Trust Company, supra*, as applicable to an entire schedule of rates. If true as to an entire schedule the rule necessarily applies with

greater force to a single commodity rate, as in the cases at bar. A circumstance which may justify a state-imposed rate of this kind is an adequate return from the entire intrastate business. So the state court held, and in each of its opinions rendered in these cases it analyzed and discussed other considerations entering into its decisions and weighing in favor of the validity of the rates.

In view of all these considerations the rate to which objection is made is well within the limits of the doctrine that the special facts controlling a case may warrant a rate or even a schedule of rates whose operation fails to produce a profit. In fact the rule announced by the state court, so vigorously attacked by counsel, is more favorable to plaintiffs in error than the rule stated by this court in *Smyth vs. Ames* and *Reagan v. Farmers Loan & Trust Company*, i. e., under the rule of the state court, the carrier in any event is protected: 1, in its reasonable profit on its intrastate business as a whole; 2, if a state-made commodity rate is found so low as to materially contribute to bringing the whole intrastate schedule below the compensatory mark, then such commodity rate is unreasonable and confiscatory. While under the rule of this court conditions and circumstances may be such that an entire schedule of rates may be non-compensatory, yet reasonable and just.

On principle, then, the doctrine of the state court is not a vicious one since, under the rule of either court, each case must rest upon its own peculiar facts, thus sufficiently safeguarding and circumscribing the opera-

tion of the rule. Under it the reasonableness of a rate is always an open question dependent upon the particular surrounding circumstances. The doctrine we submit is the logical outgrowth of the cases which we have cited, and has been recognized in the reasoning of this Court in the cases to which we shall now refer. The first case touching the point is that of *St. Louis & S. F. Ry. Co. v. Gill*, 156 U. S. 649; 39 L. ed. 567. The court follows with approval the conclusion of the supreme court of Arkansas in the same case in 54 Ark. 101; 11 L. R. A. 452, to the effect:

> "That the correct test was as to the effect of the act on the defendant's entire line, and not upon that part which was formerly a part of one of the consolidating roads; that the company cannot claim the right to earn a net profit from every mile, section, or other part into which the road might be divided, nor attack as unjust a regulation which fixed a rate at which some such part would be unremunerative; that it would be practically impossible to ascertain in what proportion the several parts should share with others in the expense and receipts in which they participated; and, finally, that to the extent that the question of injustice is to be determined by the effects of the act upon the earnings of the company, the earnings of the entire line must be estimated as against all its legtimate expense under the operation of the act within the limits of the state of Arkansas."

As was said by the state court in its former opinion, 19 N. D. 45; 120 N. W. 869:

> "Upon parity of reasoning, it would seem that the carrier may not be permitted to single out one commodity and insist that the tariff of rates for the transportation of the same is unreasonable and confiscatory, without being required to show that under the operation of such rates it will be unable to derive from its entire freight business within the state just and reasonable profit."

In *Mpls. & St. L. Ry. Co. v. Minn.*, 186 U. S. 257; 46 L. ed. 1151, a case where the court had under consideration certain coal rates prescribed by the Railroad and Warehouse Commission of Minnesota, the following language is used:

> "Notwithstanding the evidence of the defendant that, if the rates upon *all* merchandise were fixed at the amount imposed by the Commission upon coal in carload lots, the rate would not pay its operating expenses, it may well be that the existing rates upon other merchandise which are not disturbed by the Commission may be sufficient to earn a large profit to the company, though it may earn little or nothing upon coal in carload lots."

And further:

> "While we have never decided that the Commission may compel such reductions, we do not think it beyond the power of the state commission to reduce the freight upon a particular article, provided the companies are able to earn a

> fair profit upon their entire business, and that the burden is upon them to impeach the action of the commission in this particular."

Regarding these quotations together and in connection with the statements made regarding the fixing of disproportionately low rates by the carriers themselves for purposes of ultimate profit, we believe it natural and logical to infer therefrom that while, as is said in the opinion, each case must be determined by its own considerations, a carrier may under certain conditions be compelled to carry a commodity though it derive little or no profit from so doing. Else why should it be deemed an argument against the theory of the carrier in that case that possibly the rates on merchandise not disturbed by the commission are sufficiently high to earn a profit to the company, though it earn little or nothing upon coal in carload lots.

One of the conditions justifying such a rate is the ability of the carrier to earn a fair profit from its entire business. This case makes it clear that a carrier is not entitled to a uniform rate of return or profit from each commodity carried or services rendered. If in view of the return from the entire business the profit from one item may be reduced below the rate of return deemed adequate as a whole, logically all profit upon such item may be entirely eliminated.

This appears to be the interpretation placed upon this decision by the court in later cases in support of which it is cited. In *Interstate Consol. Street Ry Co. v. Mass.*, 52 L. ed. 115; 207 U. S. 79, a case testing a statute requiring street railway companies to transport

school children at a reduced rate. Mr. Justice Holmes, speaking for the court, says:

> "Whatever the fare, the statute, fairly construed, means that children going to or from school must be carried for one-half the sum that would be reasonable compensation for their carriage, if we look only to the business aspect of the question. Moreover, while at may be true that in some cases *rates or fares may be reduced to an unprofitable point, in view of the business as a whole, or upon special considerations (Mpls. & St. L. R. Co. v. Minn.* 186, 257, 267; 46 L. ed. 1151, 1157, 22 Sup. Ct. Rep. 900), it is not enough to justify a general law like this that the companies concerned still may be able to make a profit from other sources for all that appears."

The statute in question then was sustained on other grounds, but the language quoted is a clear concession that in some cases, rates or fares may be reduced to an unprofitable point in view of the business as a whole, or upon *special considerations*, and in support thereof cites the case of *Mpls. & St. L. R. Co. v. Minn.* The Court's attention will be hereinafter directed to such considerations in these cases.

Furthermore, in *Wilcox v. Consol. Gas Co.* 212 U. S. 19; 53 L. ed. 382, 400, Mr. Justice Peckham, in the opinion of the Court, used the following language:

> "We cannot see from the whole evidence, that the price fixed for gas supplied to the city by wholesale, so to speak, would so reduce the profits from the totals of the gas supply as to thereby

render such total profits insufficient as a return upon the property used by the complainant. *So long as the total is enough to furnish such return, it is not important that, in relation to some customers, the price is not enough. Mpls. & St. L. R. Co. v. Minn.*, 186 U. S. 257; 46 L. ed. 1151; 22 Sup. Ct. Rep. 900. *Atlantic Coast Line Ry. Co. v. N. Car. Corp. Com.* 206 U. S. 1; 51 L. ed. 933; 27 Sup. Ct. Rep. 585."

The case of *Atl. C. L. R. Co. v. N. Car. Corp. Comm.* 206 U. S. 1; 51 L. ed. 933, applies the principle to another form of service. That case did not involve the reasonableness of railroad rates, but rather the validity of an order requiring the carrier to render a particular service. It nevertheless is authority for the contention of the state in these cases to the extent that upon certain considerations and under certain conditions the state, under its power to regulate, may compel the doing of an act, or the rendering of a service, which forces the carrier to suffer pecuniary loss, one consideration being the "productiveness of the corporate business as a whole." And this is held to be so under the facts found by the court below even if tested by the doctrine applicable to an entire rate scheme as announced in *Smyth v. Ames*. It lays emphasis also upon the primal duty of a carrier to the public and holds that in certain cases the carrier may be required to forego some of its usual rights that the interests of the public may be furthered and satisfied.

It concedes "that if a scheme of maximum rates was imposed by state authority, as a whole adequately

remunerative, and yet that some of such rates were so unequal as to exceed the flexible limit of judgment which belongs to the power to fix rates, that is, transcended the lines of just classification, and amounted to a creation of a favored class or classes whom the carrier was compelled to serve at a loss, to the detriment of other class or classes upon whom the burden of such loss would fall, that such legislation would be so inherently unreasonable as to constitute a violation of the due process and equal protection clauses of the Fourteenth Amendment." And further that a like repugnancy to the Constitution would arise "from an order made in the exercise of the power to fix a rate when the result of its enforcement would be to compel a carrier to serve for a wholly inadequate compensation a class or classes selected for legislative favor, even if, considering the rates as a whole, a reasonable return from the operation of its road might be received by the carrier."

These concessions, of course, do not control the case and are therefore valueless as indicating the opinion of the court as to the merits of the propositions conceded. Though these were accepted as an expression of the Court's view it still, in a given case would have to be determined under what circumstances the "limits of just classification" are transcended; when the "flexible limit of judgment which belongs to the power to fix rates" is exceeded; what, within the meaning of the concession, constitutes a "loss;" when a "favored class" is created; what amounts to a "wholly inadequate compensation." In other words, it might in

spite of the propositions conceded still be true that a carrier could be compelled to carry a commodity under a prescribed rate which does not contribute to profit so long as its entire business is adequately remunerative because particular considerations justify such a rate.

From the foregoing cases it seems fairly well established that in passing upon the reasonableness of a rate the interests both of the public and of the owner of the property are to be considered; that in the final analysis the rights of the public are superior, those of the carrier subordinate; that unusual rates will not be upheld simply that stockholders may earn dividends; that each case must be controlled by attendant facts and conditions; that in a determination all circumstances that fairly have a bearing upon the rights of the carrier and of the public must be weighed; that there are considerations upon which a carrier may be required by the state to handle a commodity or render a service which does not contribute to its dividends; that a very important if not the sole consideration warranting the imposition of such a rate is the fact that the business of the carrier as a whole is remunerative; and that therefore a rate may be non-compensatory without being confiscatory. This is in reality the doctrine applied by the state court in these cases. The construction or interpretation which that court has placed upon these authorities has likewise been placed thereon by other courts.

In *Matthews v. Bd. of Corp. Com.* 105 Fed. 7, 10,* it was said in this connection:

"I must be borne in mind that the Supreme Court of the United States, in deciding whether the rates fixed under legislative authority violated the Fourteenth Amendment, do not rest their judgment on one set of rates for specific articles, but they take into consideration all the rates on all articles and decide whether, as a whole, the result is unreasonable." (Citing *Smyth v. Ames.)*

Such was understood to be the law by the court in *Southern Ry. Co. v. McNeill*, 155 Fed. 756, where it was said that a railroad is not entitled to earn a profit on every mile of its road nor upon every article carried by it, but is entitled to earn a reasonable profit upon the entire intrastate business in the state.

Again, in re *Arkansas Railroad Rate Cases*, 168 Fed. 730, where a passenger rate was in question, the court says that it is well settled that for the purpose of determining whether rates are confiscatory or not all sources of revenue must be considered, citing in support of this statement *Mpls. & St. L. Ry. Co. v. Minn.; Seaboard Air Line Co. v. Fla.;* and *Atl. C. L. R. Co. v. N. C. Corp. Comm.*, and from this it is concluded that the increase earned from one class of traffic will justify a corresponding decrease in another class, if net earnings from all sources are compensatory. P. 731.

In a later case, *Arkansas Rate Cases*, 187 Fed. 307, it is again said:

"The law is well settled that rates made by a commission on one or more commodities so low

as to be non-compensatory for the transportation of those particular commodities, does not justify an interference by the court unless it is shown that these rates would reduce the net earnings of the carrier on its entire business to an extent that they would cease to be compensatory."

In addition to the cases heretofore cited, the court cites, *N. P. Ry. v. North Dakota*, 216 U. S. 579; 54 L. ed. 624, and *Ry. Co. v. Gill*.

The same interpretation has been placed upon these decisions by the state courts.

Southern Ry. Co. v. Atl. Stoveworks, 128 Ga., 223; 57 S. E. 429.

Jacobson v. Wis. M. & P. Ry. Co. 71 Minn. 519; 49 L. R. A. 389; 74 N. W. 893.

State ex rel Taylor, v. Mo. P. Ry. Co. 76 Kan. 467; 92 Pac. 606.

People ex rel Cantrell v. St. L. A. & T. H. Co. 176 Ill. 512; 35 L. R. A. 656; 52 N. E. 292.

State ex rel McCue v. N. P. Ry. Co. 19 N. D. 45; 120 N. W. 869; 25 L. R. A. N. S. 1001.

A similar view was taken by the Interstate Commerce Commission in *Louisville & Nashville Railroad Coal & Coke Rates*, 26 I. C. C. R. 220, a coal case. And the same is true of other writers:

Wyman, Public Service Corporation, Section 1201.

Freund, Police Power, Section 551.

3 *Encyc. S. C. Rep.* 632.

It appears also from an examination of the reports of this court that in many of the rate cases which in

recent years have been brought to the court it has been argued in reliance upon the cases we have cited that confiscation cannot be predicated upon a single rate or group of rates, but must be judged from the effect on the entire business done within a state. We are aware of course that the interpretation which inferior courts and writers and attorneys have placed upon the decisions of this court are not binding upon it. They do, however, indicate a widespread understanding that the law is settled as applied by the court below.

It is contended on behalf of the plaintiffs in error that the doctrine which we believe to be deducible from the foregoing decisions was repudiated by this court in *Interstate Commerce Comm. v. Union Pacific Ry. Co. 222* U. S. 541; 549; 56 L. ed. 308. Such a conclusion, however, is not justified by the language quoted. It is merely stated that the fact that the carrier earns dividends, sheds little light on the question whether the rate on a particular article is reasonable, for if the carrier's total income enables it to declare a dividend, that would not justify an order requiring it to haul one class of goods for nothing or for less than a reasonable rate. The language does not define what constitutes a "reasonable rate." Obviously, a carrier cannot be compelled to haul goods for nothing. As is said by Chief Justice White in *Interstate Commerce Commission v. N. Car. Corp. Commission, supra*, such a suggestion is "extreme." But so far as this case discloses, a reasonable rate might be one paying the portion of taxes, operating expenses and fixed charges

apportionable to the commodity carried without contributing a cent to dividends, or it might be a rate, such as that suggested by the Interstate Commerce Commission in the *Louisville & Nashville Railroad Coal and Coke Case*, 26 I. C. C. R., 20, which pays only out-of-pocket costs.

The doctrine cannot be said to have been repudiated by this court upon the former writ of error in these cases simply because the carriers were ordered to make a trial of the rates with leave after such trial to reopen the cases for further proof. Under the theory of the state a rate may be non-compensatory yet within the limits of just classification and reasonable, all things considered. On the other hand it may be non-compensatory and exceed the limits of just classification and thus be confiscatory, everything considered.

The state has never argued, and the court below does not say that a single rate cannot be questioned simply because there is sufficient return from the business as a whole. No one now contends for such a doctrine. That there is a "limit" to the power to fix rates is conceded, but it is a "flexible limit," varying with circumstances. When that limit is exceeded the power exercised ceases to be regulatory and becomes destructive. But this excessive exercise must be made to appear beyond doubt. This was not done upon these cases in the first hearing. It was consistent with this doctrine to give to the carriers, an opportunity to show, if they could do so, that the rates were confiscatory.

Neither can it be said that the question is determined adversely to our view here by *Interstate Commerce Commission v. Stickney*, 215 U. S. 98; 54 L. ed. 112. The question discussed appears not to have been considered by this court at all. Even the decision of the court below in that case is not authority here, for the reason that the proposition contended for by counsel for the Commission there was much broader and more far reaching than is needed to sustain the rates here in question. Besides it was not a case where other reasons could be urged to justify a commodity rate failing to contribute to dividends.

Again in *Mo. K & T. Ry. Co. v. Interstate Commerce Commission*, 164 Fed. 645, the court merely announces the broad principle that a rate may not be established for a carrier that will not admit of such compensation for the service rendered as under all the circumstances is just and reasonable to it and to the public. There is no intimation that a rate upon a specific service must, under all circumstances, yield profit. Nor does the court say what in a given case shall be deemed to constitute a profit, nor what compensation is just and reasonable to the carrier and the public.

And in *Pennsylvania Ry. Co. v. Phil. County*, 220 Pa. 100; 68 Atl. 678, the court was passing upon the rates prescribed for a great branch of the carrier's business and not upon the rate for a particular commodity comprising a small part of its traffic. Neither were there involved in that case circumstances or conditions which might in a given case justify the rule applied by the court below.

Under this rule the rates in question do not contravene the rights guaranteed to the carriers under the Federal Constitution. The carriers suffer no direct loss by reason of the service rendered in carrying the commodity. There is a margin of profit which would obviously be extended upon an exact analysis of cost. The returns from the business as a whole are adequate. Besides, there are special considerations which warrant the imposition of the rates. These considerations we shall now discuss.

1. *The Intrastate Business of These Carriers as a Whole Produced a Fair Return.*

This was conceded upon the trial and the court below found that the carriers did not show that by reason of the reduction in the rate upon the coal, they were made to suffer a loss upon their intrastate traffic or an insufficient return beyond what it otherwise would have been. (Transcript Vol. I., p. 42). And the argument of the carriers here proceedds upon the theory that the entire intrastate business is fairly remunerative. The property of the carrier devoted to their North Dakota business is therefore not being confiscated by reason of the reduction in coal rates, whatever may be said as to the percentage of profit the roads would derive from the property properly assignable to the coal traffic were an assignment made to that traffic.

2. *The Commodity Affected is One of the Lowest Classes of Freight And Allowance Should be Made for that Fact.*

Another consideration weighing in favor of the

reasonableness of these rates is the character of the traffic affected thereby. In a rate case the starting point must be found in a determination of the cost assignable to the traffic touched. In making the comparison in these cases between the cost of service to the coal traffic and the revenues derived therefrom the carriers determined cost to them per unit of service of all business of the company conducted in the state and then applied this average cost of all business to the number of units of service performed in connection with the lignite traffic. With the exception of a few details of minor importance the particular character of the service rendered was only casually discussed in the evidence and the character of the commodity hauled only slightly considered. The state has contended throughout that the analyses made of defendants' cases and the exhibits and arguments submitted in its behalf show a considerable margin of profit over the cost of handling the lignite business, even on the basis of a general level of cost for all business. And the computations made by the state court indicate that its determination is of like character. (Transcript, Vol. I, pp. 21 and 22). These results are arrived at without taking into consideration at all the character of this commodity or the principle of classification.

We direct attention here to the necessity of considering in connection with all of the other elements in the cases the character of the commodity and the service rendered for the reason that this is a basic consideration or factor in rate making. To hold that

these rates are unreasonable because the evidence submitted in behalf of the plaintiffs in error shows that upon the basis of an average cost for all freight the lignite coal rates are unremunerative and confiscatory, would necessitate entire disregard of the principle of freight classification. In fact the failure to weigh in any degree the kind of article carried under the rates only adds to the uncertain character of the evidence adduced upon the subject of cost in behalf of the carriers. The charging of lignite coal per ton with a burden equal to that charged for every other ton of freight in intrastate business can no more be justified than a rate upon that coal equal to the average rate per ton upon all freight. In other words if the principle of classification is a prime consideration in the making of a rate it is equally important in the assignment of cost when the reasonableness of rates is in question. This must be so and is in reality the underlying reason for the principle of classification.

> "Classification is recognized as a necessary method of adjusting the burdens of transportation equitably upon the various articles of traffic in view of differing circumstances and conditions, and but for the necessity of such adjustment, considerations based alone on weight and distances of haul would probably determine rates except as modified by competition. This method, while securing practical uniformity, would probably deprive many articles which are now important factors in commerce of the benefit of transportation to distant points."

F. Schumacher Milling Co. v. Chicago, R. I. & P. R. Ry., 6 I. C. C. Rep. 66.

For this reason, the great number of articles commonly offered for transportation are classified. Those resembling each other in character, use, value, volume, bulk, weight, risk and expense of handling being generally placed in the same class and given the same rate. The purpose of this scheme is obviously to place upon those articles of greater value, requiring the greatest amount of service and care in shipment, and imposing the greatest risk upon the carrier, a higher proportion of the burden of expense than is placed upon commodities of comparatively low value, entailing small risk, little care and a lower grade of service in their transportation. The principle underlying it is well illustrated in *Interstate Commerce Commission v. Chicago, Great Western Ry. Co.*, 52 L. ed. 705, where it was held that a rate on packing-house products lower than that on livestock was justifiable because of the difference in the cost of carriage, the risk or injury and the larger amount which companies are obliged to pay in damages upon the latter.

It is also well stated in *Kansas City Southern Ry. Co. v. Carl*, 57 L. ed. 683, 227, U. S. 638: "The principle that the compensation should bear a reasonable relation to the risk and responsibility assumed is the settled rule of the common law. Thus in Gibbons v. Paynter, 4 Burrows, 2298, it was said by Lord Mansfield: 'His warranty and insurance is in respect of the reward he is to receive, and the reward ought to be in proportion to the risk.'"

The necessity of classification, for convenience in the fixing of rates and the conduct of transportation business, has been universally recognized by common carriers, and in fact was in use by them in the administration of their business long before the regulation of railway rates was undertaken by the federal and state governments of this country.

2 Wyman Public Service Corp. Sec. 1232.

Beale & Wyman Railroad Rate Regulation, Sec. 554.

Brief consideration of the characteristics of lignite coal will show the injustice of allotting to it a cost determined without regard to such characteristics. The expense of handling the commodity is low. Special equipment is not necessary. The carrier neither loads nor unloads the cars. These facts justify a lower rate than might be otherwise demanded.

Tift v. Southern Ry. Co., 138 Fed. 264.

Louisville E. & St. L. Cor. Co. v. Wilson 132 Ind. 517; 32 N. E. 311.

Trades League of Philadelphia v. Philadelphia, Wilmington & Baltimore Ry. Co., 8 I. C. C. Rep. 368.

Am. Central Ins. Co. v. Chicago & Alton Ry. Co., 74 Mo. App. 89.

Hayes v. a. Co., 12 Fed. 309.

Again, it is carried in carload lots, in loads considerably heavier than the average. That a reduction should be made in its rate for this reason is well stated as follows:

"Shipment by the carload goes direct to the destination. It is loaded by the shipper and is unloaded by the consignee. The freight in it does not stop at the way stations to be handled in parcels to the different consignees along the line. Only one bill of lading is made which requires but one entry upon the way bill. The time occupied in transporting it to destination is far less than in the case of a shipment in L. C. L. quantities. There is but one collection of charges for freight. Where the shipment is made in L. C. L. quantities, a separate receipt or bill of lading has to be given to every shipper for his parcel, and separate entry for every item has to be made on the way bill. The shipment is by local freight train which stops at every station for which there is a package of freight. The freight has to be taken out in parcels and delivered at each of these stations. The freight is loaded and unloaded by the railway company. There are as many collections of charges for freight as there are different parcels. The time occupied for transporting it is usually from two to three times as long as in the case of a carload shipment—according to distances. It occupies a whole car and for the vacant space in that car the company is receiving no compensation."

Wyman, Pub. Service Corp. Sec. 1348.

It is also a commodity which requires much less than ordinary care.

"Coal is among the most desirable kinds of traffic. The reasons for this have been several times stated by the Commission, and need not be repeated here in detail. The cost of receiving, transporting and delivering that commodity is less than in case of almost any other article of freight. Its value is not great. The hazard of loss in transit is insignificant. It is an article of universal necessity in daily life and as a steam fuel it furnishes the basis of many other industries. Coal rates in this country are usually highly competitive, and this fact, together with its reliability as traffic, and the large quantities which are moved, has produced on the average a very low rate."

Dennison Light & Power Co., v. Mo. Kan. & Tex. Ry. Co. 10 *I. C. C. Rep.* 337.

Tift v. Southern Ry. Co. supra, and Same, 10 *I. C. C. Rep.* 548.

Further, it is a commodity of low grade. The greater the value of the article carried, the greater the liability of the carrier as an insurer of freight and the greater its consequent risk in the transportation.

Schumacher Milling Co. v. Chicago, R. I. & P. 6 *I. C. C. Rep.* 61.

Cox Bros. & Co. v. Lehigh Valley Ry., 4 *I. C. C. Rep.* 535.

Indeed so important a factor is this that a difference of rates between bituminous coal and anthracite coal has been justified. In *Cox Bros. and Company v. Le-*

high Valley Railroad, 4 I. C. C. Reports, 535. Commissioner Morrison said:

> "The grounds upon which we are asked to find these two coals to be the same freight, a like kind of traffic, is that they are loaded, unloaded and transported in the same way and substantially at the same expense to the carrier, though one-half or more of the anthracite is used for domestic purposes.
>
> "Ordinarily there is no better criterion for reasonable charges than that which is in proportion to the service rendered; and if the cost and expense of the carrier was the only test of a reasonable charge the claim might well be made that all coals should be classed together as one freight and be subject to the same transportation charges.
>
> "Carriers in making separate classifications, or rates for different coals, take into consideration not only the expense of transportation, but the value of the freight and worth of the transportation to the shipper: the exceptional qualities which fit the more valuable anthracite for domestic and special uses and cause its large consumption in less distant markets."

It needs no argument to see that the cost of carrying a commodity of this type is much less per unit than is that of all freight, yet the average cost of (transporting) all freight is that applied in these cases. A very large part of the freight carried requires more service than coal and is vastly more expensive to

handle. This greater expense of course adds decidedly to the average cost per unit of all freight and makes it higher necessarily than it would be if no freight required any more service than coal. The use of such a factor is not fair to coal. A rate on lower grade freight yielding the average received on all freight is deemed unjust. *Colorado F. & I. Co. v. Southern Pacific Ry.* 6 *I. C. C. Ry.* 489. It is equally so to make a lower freight bear the average cost of all freight.

Tift v. Southern Ry. Co., supra.

Interstate Commerce Comm. v. Chicago, Great Western Ry. Co., 141 *Fed.* 1015.

It is, therefore, a commodity handled at a minimum of expense; loaded by the shipper and unloaded by the consignee; carried in carload lots in loads averaging on the different lines from six to eight tons in excess of the average loads of all freight; it does not call for special equipment; requires no care in transportation and is of low value, entailing, so far as the evidence shows, no insurance risk whatever.

The elements of classification are therefore all to be considered in fixing the share of the entire burden of charges which ought reasonably to be borne by the lignite coal. The service being of a low character as compared with the service rendered for a large part of the other freight traffic, the proportion of the expense assigned to the lignite traffic should be correspondingly low. In other words, so long as commodities are classified for the purpose of ratemaking, and therefore of return for service, there should be a corresponding

classification of costs in order that the charge made for cost of service in any computation shall be fairly proportioned to the service rendered, and consequently to the compensation received. A lucid discussion of this principle is found in the opinion of Commissioner Lane in the *Matter of Investigation and Suspension of Advances in Rates for the Transportation of Coal by the Chespeake & Ohio Railroad Company, et al*, 22 I. C. C. Rep. 604, where it is said:

> "Is a rate unreasonable because it does not pay its full share of taxes, fixed charges and dividends? At the end this is the question to which we come in this case. The carriers themselves having fixed these rates under the mandate of the law that they shall fix just and reasonable rates, have they justified higher rates by showing that the existing rates which they had fixed fall somewhat short of meeting all the related expenses which the carrier must bear, not only for transportation but to secure an adequate return upon its property? Let us see where this doctrine would lead. If a carrier may raise all rates to a basis where each will bear its share of cost, including all costs, and no lower rate is reasonable, then it must follow that all rates are unreasonable which yield to the carrier a greater return than such cost. Under such theory what would be the rate on tea or silks, or high-priced horses, or delicate machines? Is there to be no classification of freight excepting upon the basis of cost of transportation plus insurance risk? If so the

tariffs of every railroad in the United States must suffer a revolutionary change. In all classification, consideration must be given to what may be termed public policy, the advantage to the community of having some kinds of freight carried at a less rate than other kinds. And this is the true meaning of the phrase "what the traffic will bear." It expresses the consideration that must be shown by the traffic manager to the need of the people for certain commodities. He accordingly imposes a higher rate upon what may be termed luxuries as compared with that imposed upon those articles for which there is a more universal demand. He also gives consideration to the fact that the rate so imposed enters into the ultimate price to the consumer to but a small degree when the article is one of high value and that those in the community who can afford to purchase such articles can well afford to pay a rate greater than that which could reasonably be imposed upon the general public for commodities of common use. In this sense what the traffic will bear and the value of the service are analogous. No one would claim that a carrier was violating its duty under the law in charging three times the rate upon oriental rugs that it imposed upon cotton. This would not be undue discrimination as between commodities, even though it costs no more to transport the rugs than it did the cotton, assuming both to be carried at the owner's risk, for the one does not compete with the other, and one may

reasonably bear a higher rate than the other upon public grounds. It must be, therefore, that this Commission, under the amendment to section 1 passed by Congress in 1910, giving to us the control of freight classification, has power to determine the reasonableness of the differences that are made between the rates made applicable to the various kinds of commodities transported. We may not say that a rate shall be fixed so as to meet the requirements or needs of any body of shippers in their effort to reach a given market, nor may we establish rates upon any articles so low that they will not return out-of-pocket cost. Neither could we fix an entire schedule of rates which would yield an inadequate return upon the fair value of the property used in the service given. There is, however, a zone within which we may properly exercise "the flexible limit of judgment which belongs to the power to make rates." These are the words of the Chief Justice of the Supreme Court, 206 U. S. 126. There is no flexible limit of judgment if all rates must be upon a level of cost, and out of every dollar paid to the carrier must come a fixed amount of return for capital invested. The recognition of such a doctrine has never been suggested either by Congress or the Supreme Court. A just and reasonable rate must be one which respects alike the carrier's deserts and the character of the traffic. It cannot be a rate that takes from the carrier a profit and thus favors the shipper at the carrier's

> expense, nor is it one which compels the shipper to yield for the transportation given a sum disproportionate either to the service given by the carrier or to the service rendered to the shipper. The words "just and reasonable" imply the application of good judgment and fairness, of common sense and a sense of justice to a given condition of facts. They are not fixed, unalterable, mathematical terms."

Upon the first trial of these cases the state court took into consideration the principle of classification. In the results announced by the court in its last opinion the principle was not given effect. . (Transcript Vol. 1, pp. 22). In weighing the adequacy of the return from the coal traffic it should not be overlooked that of necessity the class of freight compels a lower assignment of cost than is made when all freight is considered. Since allowance has not been made in apportioning cost, fairness demands that it be made in passing upon the sufficiency of the return.

2. The Revenues Derived from the Traffic Exceed the Actual Outlay Incident Thereto.

The state court found that the Northern Pacific railroad has a margin of profit over and above all expenses amounting to $847.61. This result was obtained after assigning to the traffic a portion of fixed charges including taxes. (Transcript, Vol. 1, p. 19). To the extent of this amount then the traffic was held to contribute to dividends.

As to the Soo railroad it was determined that 60 per cent of the revenue was expended for out-of-

pocket costs and that the amount received in excess thereof was a contribution to expense which the road would have had to bear had there been no lignite traffic whatever. So in this sense the hauling was done at a profit. In the sense that it did not contribute to the dividends it was done at a loss.

In weighing these conclusions as to returns it must be remembered that the class of freight involved was not considered in assigning cost. The principle of classification means necessarily that there must be more or less diversity in the amount of return which may be claimed from different kinds of freight. In a consideration of the reasonableness of a rate then the cost of the service rendered must be so classified that there is assigned to each service such a proportion of expense as fairly reflects the kind and value of the commodity carried and the responsibility of the carrier in transporting it. Since the cost of service was not classified in these cases, the return of out-of-pocket costs, with a margin besides, should be deemed a fair and just minimum return in view of the fact that there is no other method by which the principle of classification may now be applied. This we submit fairly reflects the proportion of the expense of the carrier which should be borne by the coal business, as one of the lowest classes of freight.

Because of the extreme difficulty, to which the witnesses testified in these cases, of determining with particularity the cost apportionable to a single commodity, it is only just that the return of the expenses incurred in handling the commodity be accepted as

representative of a reasonable minimum within which "the flexible limit of jujdgment which belongs to the power to fix rates" be exercised; otherwise, important considerations will be entirely ignored.

This rule was applied by the Interstate Commerce Commission in *Louisville & Nashville Coal & Coke rates*, 26 I. C. C. R. 20. . In the opinion by Commissioner McChord, the following is laid down as regards the charge which may be made to the commodity involved:

> "From these figures the carrier estimates under present rates that the cost of moving coal and coke via Louisville is from 99 to 118 per cent of the revenue, while the Commission estimates the cost at from 71 to 82 per cent of the revenue. We realize that there is no exact method of so separating the accounts of a carrier as to determine exactly what is the cost of moving any particular portion of its traffic and that the best that may be accomplished is an appropriation. This has been done by two methods in this proceeding, with the result stated.
>
> However, it should be borne in mind that the costs as here figured include practically all of the costs except return upon capital account. It has been roughly estimated that of the total costs only about 50 per cent are what may be termed out-of-pocket costs—that is, the cost of fuel, wages of crews, and repairs to locomotives and cars. The other 50 per cent is made up of salaries of general officers, way and structure ac-

> count, etc., to which the carrier would be subject, whether or not the particular commodity moves. . In other words, when the carrier claims that the cost of moving the coal is 4 mills, the actual outlay on the part of the carrier for the particular business is not much in excess of 2 mills. .
>
> Anything above the out-of-pocket cost of hauling is a contribution to general expenses, and to that extent tends to relieve rather than burden other traffic. While cost is an important element in determining the reasonableness of freight rates, it is not controlling, and we do not think a reasonable maximum rate is ipso facto only such a rate as pays a fixed distributive share of all operating expenses.
>
> So long as freight is classified this cannot be, and the preservation of that classification calls for the exercise of "the flexible limit of judgment which belongs to the power to fix rates. 206 U. S. 26."

Such a holding is consistent with basic principles of rate making and these principles are logically the basic consideration in determining the reasonableness of rates; otherwise the return upon all commodities would be based upon a level of cost and such basis would utterly disregard the traditions and experience of railroad management.

The argument that a commodity rate is unreasonable because loss is shown when the commodity is charged with the average cost for all freight, is the

converse of the argument that a rate is unreasonable because if applied to all classes of freight it would result in confiscation. This was expressly condemned in *Mpls. & St. L. Ry. Co. v. Minn.* 186 U. S. 2668, where the court said:

> "Obviously such a reduction could not be shown to be unreasonable simply by proving that if applied to all classes of freight it would result in an unreasonably low rate."

For like reason a rate cannot be shown unreasonable simply by proving that a low class of freight does not return the amount per unit handled which is required to meet the expenses per unit of all classes of freight. Especially must this be so where the commodity to which the rate applies is one of the very lowest kinds of freight and the amount carried so small that it is practically negligible when compared with the entire intrastate freight business. Of course, if coal constituted the bulk of intrastate freight, its low cost would reflect in the general average. But that is not the situation here.

4. *The Enactment of the Statute was a Declaration of Public Policy by the State, in Favor of a Domestic Industry and the General Welfare.*

In view of the returns upon the intrastate business of the plaintiffs in error as a whole and other attendant circumstances these rates may be justified as a declaration by the state of a policy intended to favor a domestic industry and to further the well being of its people. The following facts concerning the natural and geographic conditions of the state were established upon

the first hearing in these cases as appears by the consolidated record therein which was made a part of the record in these cases. (Consolidated record, pp. 110, 112, 113, 119 and 134): That the state is almost entirely a prairie country; that it is without fuel supplies except as fuel is imported from the forests or the mines of other states or of its own mines; that there are within the confines of the state and particularly in the western portion thereof vast deposits of lignite coal; that this coal is suitable for use as a fuel; that though suitable for this purpose it is essentially a lower grade of fuel than the bituminous coals of Pennsylvania and the anthracite of the same section; that it carries a larger percentage of moisture than the coals mentioned and loses more in shipment by evaporation than do these coals; that prior to the taking effect of the act in question the consumption of the eastern coals in this territory was very great; that the freight rates then in force did not take into consideration the difference in value either actual or as fuel between the lignite and other coals; that this tended to retard the development of the lignite coal industry; that this industry is in its infancy; and that in the opinion of those interested in the development of the industry before the taking effect of the act a reduction in rates which would take into consideration the difference in value between lignite and other classes of coal consumed in the state would have a tendency to increase the consumption of lignite coal and develop this industry. .

Upon this situation and the enactment of the statute in question the court below remarks:

> "We are led to here remark the fact of the legislative rate being a declaration by the sovereign power of this state on a matter of public policy. Importance must be given to the situation as disclosed by the facts of which the court will take judicial notice, and concerning which legislation in the public interests and founded upon public policy has been as here declared. The central and western portions of this state are underlaid with lignite coal beds, the mining of which for fuel is as profitable as a mining enterprise as it is an economic advantage to the consumers who must in this climate use coal six months out of the year. Thus necessity creates an industry and a market. It would seem that the development of both must redound to the benefit of the common carriers, here as ever the connecting link between the producer and the consumer. It is easy to see that the strangulation of the mining and distribution of this coal, or the confining of it by exorbitant freight rates to as limited an area and therefore as small a market as possible, must temporarily operate to the great advantage of the common carriers and against the public welfare of the people of this state proportionately, inasmuch as those who cannot burn lignite fuel must, on these prairies, otherwise devoid of fuel, buy the eastern coal which has increased in cost from 100 to 200 per

cent between the mines in Pennsylvania and the point of its distribution to the consumer, half of which undoubtedly arises from freight charges, as in this instance, as always, the old adage proves true that 'the consumer pays the freight.' As against the incentive for avarice of those benefited by freight rates and urging in this review of this commodity rate the right to dividends from the earnings of every commodity carried, the legislature in its wisdom, exercised in the interest of sound public policy, has fixed by statute the maximum rate and the statute must be looked upon as the legislative expression of a public policy intended to encourage industry and commerce and promote the general well-being and public good under the obvious benefits arising therefrom. It may be that to a greater or lesser extent public policy enters into the fixing of every rate statute or rate regulation, but it would seem to be here present to an unusual degree. Of course questions of public policy may enter into every statute in the same sense as here present and may be assumed as the reason for interference with state-fixed rates only where the clearest proof makes it necessary to protect private constitutional rights from state infringement. But no harm can come from in passing remarking its presence here." Transcript, Vol. 1, p. 36.

In the light of the circumstances mentioned in this quotations, the history of the act and its obvious pur-

pose, the rates in question should be held reasonable, though they are so low that the defendants derive little or no profit from the traffic. In this behalf it must be borne in mind that the reasonableness of a rate cannot be determined without reference to the interests of the public. The carrier's calling is of a public nature. It is one into which a person or a corporation cannot be compelled to enter involuntarily. It has been repeatedly declared by the courts of this country that in determining the justness or unjustness of the rate prescribed by a legislature or a commission, it is necessary to consider not only the rights of the carrier, and of those interested therein, but the rights of the public as well.

It was said in an early case, *Covington & Turnpike Road Co. v. Sanford*, 164 U. S. 569; 41 L. ed. 566:

> "It is alleged here that the rates prescribed are unreasonable and unjust to the company and its stockholders. But that involves an inquiry as to what is reasonable and just for the public. If the establishing of new lines of transportation should cause a diminution in the number of those who need to use the turnpike road, and consequently a diminution in the tolls collected, that is not, in itself, a sufficient reason why the corporation operating the road should be allowed to maintain rates that would be unjust to those who must or do use its property. The public may not properly be subjected to unreasonable rates in order simply that stockholders may earn dividends."

Later, in *Smyth v. Ames*, 169 U. S. 467; 42 L. ed

819, the court, discussing the same subject, uses the following language:

> "A railroad is a public highway, and none the less so because constructed and maintained through the agency of a corporation deriving its existence and powers from the state. Such a corporation was created for public purposes. It performs the function of the state. Its authority to exercise the right of eminent domain and to charge tolls was given primarily for the benefit of the public. It is, therefore, under governmental control, subject, of course, to the constitutional guaranty for the protection of property. It may not fix its rates solely with a view to its own interests, and ignore the rights of the public. But the rights of the public would be ignored if rates for transportation of persons or property on a railroad were exacted without reference to a fair value of the property used for the public, or of the services rendered, and in order simply that the corporation may meet its operating expenses, pay interest on its bonds, and declare dividends to its stockholders."

It is therefore settled that in consideration of the rights, interests and welfare of the public, a rate may be imposed by the rate-making power without regard particularly to the question of its contribution to profits. A consideration of this kind is the well defined public policy underlying the rates prescribed by the act in question, despite our assumption that they do not contribute to dividends, and in that particular,

compel pecuniary loss on the part of the carriers. Upon this point we call attention to the scope of the power invoked in rate regulation.

This power, its source and character, were fully considered in *Munn v. Ill.* 94 U. S. 113; 24 L. ed 77. Since that time it has been settled that property becomes clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large. When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use and must submit to be controlled by the public for the common good to the extent of the interest he has thus created. The source of this principle is found in the common law, as long since announced by Lord Hale. In its application it is held that common carriers exercise a sort of public office and have duties to perform in which the public is interested.

The foregoing case has been authority, now universally accepted, for a broad and broadening interpretation of the police power vested in the states. In *Budd v. New York*, 117 N. Y. 1, 621, 5 L. R. A. 559, the New York Court of Appeals, through Judge Andrews stated that the criticism to which the Munn case has been subjected has proceeded mainly on a limited and strict construction and definition of the police power, and in that behalf says:

> "There is little reason, under our system of government, for placing a close and narrow interpretation on the police power, or in restricting its scope so as to hamper the legislative power in

dealing with the varying necessities of society, and the new circumstances as they arise, calling for legislative intervention in the public interest. Life, liberty and property have a substantial protection against serious invasion by the legislature in the traditions of the English-speaking race, and a pervading public sentiment which is quick to resent any substantial encroachment upon personal freedom or the rights of property. In no country is the force of public opinion so direct and imperative as in this. The legislature may transgress the principles of the Constitution. It has done so in the past, and it may be expected that it will sometimes do so in the future. But unconstitutional enactments have generally been the result of haste or inadvertence, or of transient and unusual conditions in times of public excitement, which have been felt and responded to in the halls of legislation."

This view was approved by this court in its review of the same case, 143 U. S. 517; 36 L. ed. 252. The power, so defined, "inherent in every sovereignty," authorizes the enactment of legislation and the formulation of rules designed to meet the growing needs of society.

"The very existence of government presupposes the right of the sovereign power to prescribe regulations demanded by the general welfare for the common protection of all. This principle inheres in the very nature of the social compact. The protection of private property is one

of the main purposes of government; but no one holds his property by such absolute tenure as to be freed from the power of the legislature to impose restraints and burdens required by the public good, or proper and necessary to secure the equal rights of all."

People v. Budd, supra.

The power of states to regulate within their limits matters of internal police, includes in that general designation, *whatever will promote the peace, comfort, convenience and prosperity of the people (Escanaba Co. v. Chicago,* 107 U. S. 678; 272 L. ed. 445), and is not limited to regulations pertaining to the health, morals or safety of the public.

In *Lake Shore & M. S. R. Co. v. Ohio,* 173 U. S. 292; 43 L. ed. 706, relating to a legislative act of the state of Ohio requiring trains to stop at certain stations, the following language was used:

"Now it is evident that these cases (the cases cited) had no reference to the health, morals or safety of the people of the state, but only to the public convenience. They recognized the fundamental principle that, outside of the field directly occupied by the general government under the powers granted to it by the constitution, all questions arising within the state that *relate to its internal order, or that involve the public convenience,* are primarily for the determination of the state, and that its legislative enactments relating to these subjects and which are not inconsistent with the state constitution, are to be respected

> and enforced in the courts of the Union, if they do not, by their operation, directly intrench upon the authority of the United States or violate some right protected by the national constitution."

And further:

> "It may be that such legislation is not within the police power of a state, as those words have been sometimes, although inaccurately, used, but in our opinion the power, whether called police, governmental or legislative, exists in each state by appropriate enactments not forbidden by its own constitution or the constitution of the United States to regulate the relative rights and duties of all persons and corporations within its jurisdiction, and therefore to provide for the *public convenience and the public good.*"

It thus appears that the police power keeps pace with the progress of society and that it is broad enough to authorize and sustain legislation designed to satisfy growing public necessity and increasing social wants. Its adaptability to changing conditions and to prevailing ideas as regards measures deemed promotive of the public good is most forcefully expressed in the opinion in *Noble State Bank v. Haskell*, 219 U. S. 112; 55 L. ed. 116, a case involving the constitutionality of the Oklahoma statute providing for the guaranty of bank deposits:

> "It may be said in a general way that the police power extends to all the great public needs. Camfield v. United States, 167 U. S. 518, 42 L. ed. 260, 17 Sup. Ct. Rep. 864. *It may be put forth*

in aid of what is sanctioned by usage, or held by the presiding morality or strong and preponderant opinion to be greatly and immediately necessary to the public welfare. Among matters of that sort, probably few would doubt that both usage and preponderant opinion give their sanction to enforcing the primary conditions of successful commerce. One of those conditions at the present time is the possibility of payment by checks drawn against bank deposits, to such an extent do checks replace currency in daily business. If, then, the legislature of the state thinks that the public welfare requires the measure under consideration, analogy and principle are in favor of the power to enact it."

Under the power of regulation, thus broadly interpreted enactments of different character have frequently been upheld as its valid exercise in the interest of the common good, though it has imposed upon the public service corporations affected, hardship and inconvenience even to the point that financial loss inevitably ensued.

In *Gladson v. Minnesota*, 166 U. S. 427-430; 41 L. ed. 1065, the Court had before it for review an act of the legislature of Minnesota requiring all regular passenger trains to stop at all county seats within the state. The following is the reasoning of the court:

> "A railroad corporation created by a state is for all purposes of local government a domestic corporation, and its railroad within the state is a matter of domestic concern. Even when its road

connects, as most railroads do, with railroads in other states, the state which created the corporation may make all needful regulations of a police character for the government of the company while operating its road in that jurisdiction. It may prescribe the location and the plan of construction of the road, the rate of speed at which the trains shall run, and the places at which they shall stop, and *may make any other reasonable regulations for their management in order to secure the objects of the incorporation, and the safety, good order, convenience and comfort of the passengers and of the public.* All such regulations are strictly within the police power of the state."

Upon that particular proposition which we are here considering, the right of the legislature to enact a statute prescribing rates with a view to promoting the welfare of its people by developing an industry within its borders, the following is particularly pertinent:

"The legislature of the state may well treat it as one important object of establishing a railroad within the state that public officers, parties to actions, jurors, witnesses and citizens generally should be enabled to more promptly reach and leave the centers to which their duties or business shall call them, to require every regular passenger train running wholly within the limits of the state, to stop at all stations, at county seats directly in its course, for the few minutes and at the trifling expense needed to take on and dis-

> charge passengers with safety, as a reasonable exercise of the police power of the state, and cannot be considered a taking of property of the company without due process of law."

If the legislature may well treat it as an important object of establishing a railroad within the state that officers and interested parties may be able to reach the county seats of the several counties therein, it may equally well treat it as an important object of establishing such road that the people of the state shall be enabled to secure from the mines within its borders a supply of fuel which should insure them against famine and suffering. And with the same logic the legislature may well consider it as one of the important objects of bringing these railroads into existence, or of authorizing them to transact business within the state, that the potential industries within the state should be fully and completely developed. Considering the railroads as important factors in such development, the legislature may properly take into consideration in fixing rates upon coal, the difference in value between the lignite coal which will constitute the bulk of the coal traffic, and other coal with which it must necessarily compete, and which is so largely an article of interstate commerce that it only indirectly feels the effect of rate regulation by the state. The principle applied in the cited case need not be stretched an iota to uphold the legislation here attacked.

In another case, *Wisconsin M. & P. R. Co. v. Jacobson*, 179 U. S. 287, 45 L. ed. 194, an act of the state of Minnesota requiring track connections at the intersec-

tion of railroads, was considered. . It was claimed by the carrier that considerable financial loss would result thereto by reason of the legislative requirement. While the court says that a statute or regulation is frequently valid, or the reverse, according as the fact may be, whether it is a reasonable or an unreasonable exercise of legislative power over the subject matter involved, and that in many cases questions of degree are the controlling ones by which to determine the validity or the reverse of legislative action, the statute was upheld as a reasonable exercise of the power of regulation in favor of the interests and for the accommodation of the public in a manner not substantially or unreasonably detrimental to the ultimate interests of the corporation itself. .

Again, in *Atl. C. L. R. Co. v. N. Car. Corp. Comm.* 51 L. ed. 933, an order of the corporation commission requiring the carrier to restore a connection with a certain point within that state, was before the court. It was contended that the traffic was such that the extra train which would necessarily be reinstated would impose financial loss. The order was declared valid because as the primal duty of a carrier is to furnish adequate facilities to the public, that duty may well be compelled, although by doing so, as an incident, some pecuniary loss from rendering such service may result. It follows, therefore, that the mere incurring of a loss from the performance of such a duty does not, in and of itself, necessarily give rise to the conclusion of unreasonableness as would be the case where the whole scheme of rates was unreasonable.

under the doctrine of *Smyth v. Ames*. It is stated that the fact that pecuniary loss is incident to the furnishing of the facility ordered, is an important criterion to be taken into view in determining the reasonableness of the order, but that it is not the only one, for the reason that "as the duty to furnish necessary facilities is coterminous with the powers of the corporation, the obligation to discharge that duty must be considered in connection with the nature and productiveness of the corporate business as a whole, the character of the services required and the public need for its performance.."

To the same effect is *Interstate Consol. Street Ry. Co. v. Mass.*, supra, in which an act requiring a street railway company to transport school children for one-half fare was upheld. Upon the point, Mr. Justice Holmes says:

> "The obverse way of stating this power in the sense in which I am using the phrase would be that constitutional rights, like others, are matters of degree, and that the great constitutional provisions for the protection of property are not to be pushed to a logical extreme, but must be taken to permit the infliction of some fractional and relatively small losses without compensation, for some, at least, of the purposes of wholesome legislation. *Martin v. Dist. of Columbia*, 205 U. S. 135, 139; 51 L. ed. 743, 744, 27 Sup. Ct. Rep. 440; *Camfield v. United States* 167 U. S. 518, 524, 42 L. ed. 260, 262, 17 Sup. Ct. Rep. 864.
>
> If the 14th amendment is not to be a greater

> hamper upon the established practices of the states in common with other governments than I think was intended, they must be allowed a certain latitude in the minor adjustments of life, even though by their action the burdens of a part of the community are somewhat increased. The traditions and habits of centuries were not intended to be overthrown when that amendment was passed."

Under these authorities it was competent for the legislature to determine that the public welfare of this state required the measure fixing the rates on coal which would put the producers of lignite coal upon a basis of equality with the producers of higher grades of fuel, for the purpose not only of obviating future fuel shortages and the hardship and suffering incident thereto, but also for the purpose of developing industries dependent upon a bountiful fuel supply, and generally improving the commercial and economic conditions within the state. The legislature having considered the act desirable, "analogy and principle are in favor of the power to enact it" because "usage and preponderant opinion give their sanction to enforcing the primary conditions of successful commerce," and sustaining what is deemed "greatly and immediately necessary to the public welfare."

Only recently, in upholding a laundry license act of the State of Montana, this Court has given recognition to the right of a state to carry out a definite policy favorable to certain industries, or forms of industry. Upon this point the court says:

"A state does not deny the equal protection of the laws merely by adjusting its revenue laws and taxing system in such a way as to favor certain industries or forms of industry. Like the United States, although with more restriction and in less degree, a state may carry out a policy, even a policy with which we might disagree. *McLean v. Arkansas*, 211 U. S. 539, 547. *Armour Packing Co. v. Lacy*, 200 U. S. 226, 235. *Connolly v. Union Sewer Pipe Co.*, 184 U. S. 540, 562. It may make discriminations, if founded on distinctions that we cannot pronounce unreasonable and purely arbitrary, as was illustrated in *American Sugar Refining Co. v. Louisiana*, 179 U. S. 89, 92, 95; *Williams vs. Fears*, 179 U. S. 270, 276; *W. W. Cargill, Co. vs. Minnesota*, 180 U. S. 452, 469. It may favor or discourage the liquor traffic, or trusts. The criminal law is a whole body of policy on which states may and do differ. If the state sees fit to encourage steam laundries and discourage hand laundries, that is its own affair. And if again it finds a ground of distinction in sex, that is not without precedent. It has been recognized with regard to hours of work. *Muller vs. Oregon*, 208 U. S. 412. It is recognized in the respective rights of husband and wife in land during life, in the inheritance after death of the spouse. Often it is expressed in the time fixed for coming of age. If Montana deems it advisable to put a lighter burden upon women than upon men with regard to employment that

> our people commonly regard as more appropriate for the former, the Fourteenth Amendment does not interfere by creating a fictitious equality where there is a real difference. The particular points at which that difference shall be emphasized by legislation are largely in the power of the state."
>
> *Quong Wing v. Kirkendall*, 223 U. S. 62.

The power of classification or discrimination which a state may exercise in dealing with its local interests has in this case been logically applied. Such power is clearly defined in *American Sugar Refining Co. vs. Louisiana*, cited in the quotation. The prescribing of rates for coal by the legislature of this state is the declaration of a policy with reference to certain interests for the purpose of furthering the general well-being of its people. The act prescribing the rates is in itself an act of classification in the sense in which that term is used in the cases above cited. Unquestionably the coal mining industry might be favored by revenue laws of the state for the very reasons prompting the enactment of the statute in question. Now, if that industry may be favored through the instrumentality of revenue or taxation statutes, it may with equal logic, and subject to the same limitations, be favored by means of the regulation of railroad rates, for the power to regulate rates of public service corporations is as clearly one of the inherent powers of sovereignty as is the power to impose taxes and exact revenues.

Considerations of economic and industrial advantage in rate-making are therefore proper. In *Southern*

Ry. Co. v. Atlanta Stove Works, 57 S. E. Rep. 434, such rates were upheld as an adaptation to meet special economic and industrial conditions in certain localities. The right of the state to encourage or foster an industry by the establishment of certain rates was recognized by the Interstate Commerce Commission in *Cobb v. N. P. Ry. Co.*, 20 I. C. C. Rep 100, although effect was not given thereto insofar as they affected interstate commerce, for the reason that the commission was without authority to give such effect. In another case it was stated that "the industrial and economic conditions of a city may be taken into consideration in determining the reasonableness or unreasonableness of a rate on a commodity contributing to the industrial welfare of such city, as compared with the rates on the same commodity to competing points." *G. N. Ry. Co. v. C. M. & St. P. Ry. Co.*, 5 I. C. C. Rep 571. And in the *Matter of Investigation and Suspension of Advances in Rates for the Transportation of Coal by the Chesapeake & Ohio Ry. Co.*, et al, heretofore cited, it is said that in all cases consideration must be given to what may be termed public policy, the advantage to the community of having some kinds of freight carried at a less rate than others.

Having the right to enact a law favoring a certain industry, it was for the legislature to determine the necessity of such enactment, and having determined the question of its propriety it is concluded here, unless it be so utterly unreasonable and extravagant in its nature and purposes that the property and personal rights of the defendants are unnecessarily and in a

manner wholly arbitrary interfered with or destroyed without due process of law. The fact that the court may differ with the legislature in its views of the policy adopted affords no grounds for judicial interference.

McLean v. Arkansas, supra.

The rates in question are not nominal merely. Under the most unfavorable view which may be taken of them, or which has been taken of them in these cases, they concededly permit the return of all out-of-pocket costs, and in addition contribute to general expenses. We maintain that they pay the full share of all expenses which can properly be assigned to the coal traffic considering the class of the commodity carried and leave a liberal margin of profit. The act prescribing them is therefore not vulnerable to the objection that it expresses a policy "arbitrary, unreasonable or extravagant" in its nature. Rather, it is the expression of a policy intended to secure and further the welfare and comfort of the people of the state, and to develop and upbuild its industrial and commercial resources and possibilities. In aiming at these commendable ends it imposes no hardship upon the carriers required to operate under the rates prescribed. It denies them no returns which they may reasonably demand upon their investments, and in no way deprives them of a fair and reasonable profit upon the entire business done by them within the state.

5. *The Value of the Property Used in the Intrastate Business was not established.*

It is well settled that in determining whether the

right of a carrier to receive just compensation for the service given to the public has been infringed, "the basis of calculation is the fair value of the property used for the convenience of the public."

Simpson v. Shepard, 230 U. S. 434.

Smyth v. Ames, 169 U. S. 546; 42 L. ed. 849, 18 Sup. Ct. Rep. 418.

San Diego Land & Town Company v. National City, 174 U. S. 757; 43 L. ed. 1161.

Wilcox v. Consolidated Gas Company, 212 U. S. 19; 41, 53 L. ed. 395.

It is true that the Soo Railroad made an attempt to prove the value of the property devoted to its business in North Dakota. This was found insufficient. The precision with which value must be established has been definitely determined by this Court in *Knott v. Chicago B. & Q. R. Co.*, 230 U. S. 499; 57 L. ed. 1591. The Court says:

> "On examining the evidence, however, we find it to be too general and inconclusive to be regarded as sufficient proof to sustain the values as found. Undoubtedly, the companies possessed valuable terminals, but what the values were was not suitably shown. There is an absence of evidence, appropriately specific, dealing with the lands, improvements, structures, equipment, and other property owned by each company, and showing what the various items of property were worth. It would seem manifest from the character of the evidence which can be supposed to have relation to value, that reliance was principally

placed upon the estimates of the state assessing board. There was proof of the amount of stocks and bonds, of earnings, and also testimony as to the cost of certain recent construction; but while these matters could properly be considered in reaching a conclusion, we fail to find any adequate basis for the definite findings of value that have been made."

And in the *Minnesota Rate Cases*, 230 U. S. 454, it is said:

"The property is held in private ownership, and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law. But still it is property employed in a public calling, subject to governmental regulation, and while under the guise of such regulation it may not be confiscated, it is equally true that there is attached to its use the condition that charges to the public shall not be unreasonable. And when the inquiry is as to the fair value of the property, in order to determine the reasonableness of the return allowed by the rate-making power, it is not admissible to attribute to the property owned by the carriers a speculative increment of value, over the amount invested in and beyond the value of similar property owned by others, solely by reason of the fact that it is used in the public service. That would be to disregard the essential conditions of the public use, and to make the public use destructive to the public right."

And further:

> "The allowances made below for conjectural cost of acquisition and consequential damages must be disapproved; and, in this view, we also think it was error to add to the amount taken as the present value of the lands the further sums, calculated on that value, which were embraced in the items of 'engineering, superintendence, legal expenses, contingencies and interest during construction."

In the light of these principles the state court found the evidence of value entirely inadequate. (Transcript, Vol. I, pp. 44, 45 and 46). In fact under the authority of the last rule the total value of the Soo property in North Dakota, concerning which evidence was submitted, is reduced by at least one-half. (Transcript, Vol. I, p. 45).

Further than this, apportionment of value was not made to the intrastate business. It was held in *Smyth v. Ames*, and *Simpson v. Shepard* that the reasonableness of intrastate rates must be determined by considering separately the value of the property employed in the intrastate business and the compensation allowed in that business under the rates prescribed. Under the claim of the carriers that they should earn a fair profit upon each commodity, there should have been a further apportionment of value between passenger and freight business and thence an assignment of value to the coal business so the rate of return thereon could be ascertained. Otherwise the percentage of profit cannot be shown. This was not done.

While the Soo Railroad did attempt to assign value upon the gross earnings basis this is no longer recognized as an apportionment at all. It is out of question since the decision in *Simpson v. Shepard*, 230 U. S. 459. The Court there said:

> "The apportionment of the value of the property, as found, between the interstate and intrastate business, was made upon the basis of the gross revenue derived from each. This is a simple method, easily applied, and for that reason has been repeatedly used. It has not, however, been approved by this court, and its correctness it now challenged. Doubtless, there may be cases where the facts would show confiscation so convincingly in any event, after full allowance for possible errors in computation, as to make negligible questions arising from the use of particular methods. But this case is not of that character. In support of this method, it is said that a division of the value of the property according to gross earnings is a division according to the 'value of the use,' and therefore proper. But it would seem to be clear that the value of the use is not shown by gross earnings. The gross earnings may be consumed by expenses, leaving little or no profit. If, for example, the intrastate rates were so far reduced as to leave no net profit, and the only profitable business was the interstate business, it certainly could not be said that the value of the use was measured by the gross revenue. * * * If the property is to be divided ac-

> cording to the value of the use, it is plain that the gross-earnings method is not an accurate measure of that value."

Since no other attempt was made to assign value to the intrastate coal business the very "basis of calculation" necessary to a proper determination of the case on the carriers' own theory is lacking.

The Northern Pacific Railroad made no attempt whatever to prove the value of the property used by it in its North Dakota business. (Transcript, Vol. I, p. 49). In view of the finding as to this road that after apportioning to the coal traffic a share of all expenses, including general expenses and taxes, there is a margin of profit amounting approximately to $900.00, it seems that consistently with its theory as to profit upon a commodity business the value of the property used in handling the traffic should have been determined.

It is contended in behalf of the railroads and especially the Soo railroad, that this is a case where the rates are so low upon any reasonable basis of valuation that there can be no doubt as to their confiscatory nature. It is not made clear, however, how confiscation can be made to appear unless there is a starting point from which to determine it, and this, under the authorities, is the value of the property "used for the convenience of the public."

In the Soo case it was found that the margin of error in the estimated value of the property devoted to that railroad's entire business in North Dakota is obviously very large under the principles laid down in

the Minnesota cases. It was held in *Wilcox v. Consolidated Gas Company*, 212 U. S. 19, that where there is a very narrow line of division between possible confiscation and proper regulation the material fact of value should not be left in doubt. In these cases either the property is plainly not being confiscated, or the line of division between confiscation and regulation is narrow. In the view most favorable to the carrier the determination was necessary.

6. *The Coal Business is in Itself Negligible.*

The total ton mileage on the Northern Pacific Railroad of all freight for the year in question was over 700,000,000, while for coal it was 9,380,678. That is, the coal represented about 1.3 per cent of the total business. (Transcript, Vol. I, p. 10). In fact it was said by counsel for the railroad in the court below that the commodity might be carried for nothing without materially affecting the company's revenues. (Transcript, Vol. I, p. 44).

On the Soo railroad the total ton mileage of all freight for the year in question was 250,000,000, while the total ton mileage of coal for the same period was 8,564,038, or a trifle over 3 per cent of the total intrastate business. (Transcript, Vol. III, p. 119), (Transcript, Vol. I, pp. 23 and 24).

A business constituting so small a part of the intrastate business of the carrier is not of sufficient consequence, so long as it reimburses the carrier for all of the expense incident to it to warrant a holding of confiscation when the entire business done by the carrier is found profitable. As was suggested in *Louisville & Nashville Co. v. Ry. Comm.*, 208 Fed. 35, 52:

"It is conceivable that the reduction of a specific rate may be inconsequential in its effect on the entire intrastate business or at least of not sufficient consequence to constitute confiscation."

This is exactly the situation here.

7. There are Certain Conditions Peculiar to the Soo Road which Contribute to the Unfavorable Operation of the Rates.

Another consideration which is applicable to the Soo road in particular is the fact that its Missouri River division is the most expensive to operate and the least remunerative of any division of that railroad. (Transcript, Vol. I, p. 21). In fact the density of the freight traffic on the division was shown to be less than one-half that of the entire line. As was found by the court, a very large percentage, about three-fourths, of the entire lignite traffic is handled on this division, and, as is said, the conditions are not so favorable for transportation on that division as on the Northern Pacific railroad. While upon the entire line of this carrier within the state the coal business constitutes 3 per cent of the traffic, it appears that on the Missouri River division it constitutes over 18 per cent. (Transcript, Vol. III, p. 121), (Transcript, Vol. I, pp. 22, 23 and 24). And upon that line within the state, exclusive of the Missouri River division, where the traffic conditions are presumably normal and justly comparable with the traffic conditions on the Northern Pacific road, the coal business amounts to .8 of 1 per cent only. (Transcript, Vol. III, p. 122).

It must be remembered also that the Missouri River

division is treated by the court below in its computations as a branch line and for that reason the operating expense of the division per unit is made a trifle more than double the main line cost of the same kind. (Transcript, Vol. I, pp. 22 and 23).

This carrier, then, is asking to have these rates declared confiscatory because it happens that most of the traffic handled under the rates is carried on a division of the road, which is in fact a branch line, where it constitutes about 1-5 of the entire traffic handled, and upon a portion of the line which regardless of the large volume of low grade freight is concededly the most expensive to operate.

If the business under such conditions is not profitable that is not in itself evidence that the rates are unreasonable or confiscatory. This was determined in *St. Louis Ry. Co. v. Gill*, 156 U. S. 665. The fact that unusual traffic conditions exist may not itself justify the fixing of a rate at a point where it will secure to the carrier the usual margin of profit. That is, the conditions may be so unusual that the value of the service will not warrant a rate which is compensatory in the generally accepted sense. In such a case, of course, the rights of the public will outweigh the usual right of the carrier to compensation for the use of its property. Such a circumstance was contemplated by this Court in *Reagan vs. Farmers Loan & Trust Company*, 154 U. S. 362, where the Court said:

> "There may be circumstances which would justify such a tariff (a tariff failing to produce profit); there may have been extravagance and

the needless expenditure of money; there may be waste in the management of the road; enormous salaries, unjust discrimination as between individual shippers resulting in general loss; the construction may have been made at a time when materials and labor were at the highest; the road may have been unwisely built in localities where there is not sufficient business to sustain a road. Doubtless too there are many other matters affecting the rights of the community in which the road is built as well as the rights of those who have built the road."

In the *Arkansas Railroad Rate Cases*, 168 Fed. 732, the court discussed unusual conditions affecting the revenues of certain roads. The court said:

"It would hardly be proper for the court to say that such roads are entitled to as great a compensation on their investments from intrastate business as the ordinary roads built for the accommodation of the intrastate business as well as the interstate business. As is well known, some of the Pacific roads traverse the deserts for hundreds of miles through strips of territory where there is practically no intrastate business, either freight or passenger. Would it be proper in such cases to hold that the road shall have the right to charge for the intrastate traffic in that section tariff rates high enough to enable it to earn a certain fixed percentage on its investment? Would not, in such a case, the rates have to be so high as to be confiscatory of the property of the

residents of that state? Must the public guarantee the railroads a certain income on their investment, regardless of the conditions of the country traversed, or whether bad judgment was exercised in the selection of the route. We do not think so. New lines or branches to increase the business of the main line or the exercise of bad judgment in the building of a road are to be considered in determining what rates would be fair and just to the corporation as well as to the public."

A similar view is expressed in the same cases in 187 Fed. 304.

SanDiego Land & Town Company vv. Jaspar, 189 U. S. 439, 446; 47 L. ed. 892.

The traffic conditions on this road generally are similar to those on the Northern Pacific. (Transcript, Vol. I, p. 24). This being so, if the coal business was normally distributed over its entire line the result of its carriage under these rates would be more favorable to the carrier and in all probability would meet not only all expenses which might be assigned to the coal traffic, but would contribute to dividends as was found to be the case upon the Northern Pacific railroad. In fact, this is shown (Transcript, Vol. I, p. 22) where on a main line basis the cost per car is found to be $4.75 as against a return of $6.63. If so, it follows that if the returns from the business are, under existing conditions, insufficient to contribute to dividends, that fact is attributable directly to the unfavorable conditions to which we have referred under

which the carrier must operate as regards this commodity. In that event justice does not require that a further burden be imposed upon the public. Under normal conditions the commodity business would add something to dividends. In spite of this abnormal situation it was determined that of the revenues received from the coal business only, 60 per cent. was required to meet the actual outlay incident to it, while what remained was a contribution to general expenses.

8. *The Cost of the Service Rendered has not been Satisfactorily Established in the Case of the Soo Railroad.*

For the purposes of this discussion we assume that the rules governing the judicial determination of the validity of a schedule of rates should be applied where a commodity rate is involved.

It is no longer open to question that in testing the validity of rates the carrier complaining of their unreasonableness is burdened with showing the cost of the business affected by them. For failure to make such a showing carriers have been repeatedly turned from this court without relief.

Northern Pacific Railway Co. v. State, ex rel McCue, 216 U. S. 579; 54 L. ed. 624.

Seaboard Air Line Railway Co. v. Florida, 203 U. S. 261, 51 L. ed. 175.

Minneapolis & St. L. R. Co. v. Minnesota, 186 U. S. 257; 46 L. ed. 1151.

Simpson v. Shepard, 230 U. S. 352; 57 L. ed. 1151.

The court found as to the Soo railroad that the statistics of the carrier are merely estimates so that definite calculations are impossible. And this relates to "all of the tables of statistics furnished." Upon this point the court says:

> "We are satisfied that this railway company has furnished all the statistics at its command tending to throw light on whether the lignite traffic is carried within this state at a profit or at a loss. But the statistics in the main amount to but estimates, inasmuch as the known bases are wanting from which to make definite calculations. This is understood and practically admitted by the railway officials themselves. The testimony of Mr. Tombs, auditor and leading statistician of the defendant company, in the examination conducted by the railroad's own counsel virtually admits the impossibility of arriving at the cost of carriage of this commodity from the statistics at his disposal, and that any result must be merely approximate and deductions from the statistics concerning the operation, expenses and profit of the whole system instead of that portion of the system within this state, and must of necessity be too indefifinite to be classed as even an approximate result of the cost of transportation of this commodity. (Pages 122 and 133 of abstract). We have examined all of the tables of statistics furnished and are forced to the same conclusion. And this necessarily rejects in toto the gross earnings theory which

counsel for this railroad have endeavored to sustain as applicable under its proof. The gross revenue method is properly applicable to the determination of certain matters such as the expense for taxation, where a true relation exists between the basis taken and the result sought. It is possible that if this was a case to determine a commodity rate applicable to the entire Soo system, with the commodity moving with a reasonable uniformity over the entire system, or under conditions not peculiar to a particular locality, that the gross revenue theory might be of value. But to determine the reasonableness of a freight rate on a single commodity moving within a prescribed radius of two hundred miles from the place of its production, and that wholly within a single state and of no greater amount or proportion of the total traffic than that of lignite coal, and with no basic figures except gross expenses and gross earnings, it is impossible to gtt even approximate results. At best they must amount to mere estimates. To illustrate, under the application of the revenue basis as made by the company in Tables No. 2, 3, 4, 5 and 6, Group A., and other tables into which the deductions are carried, all coal carried during the summer months returns a profit regardless of the rate, while all coal carried during the six other months of the year must return a loss even though the rate be twice that of the summer months."

In spite of the unsatisfactory nature of the proof

submitted upon this point the court considered certain data in the record and announced some general conclusions regarding the lignite traffic. The discussion of the evidence from which its conclusions are drawn indicates very clearly that there is present therein, and necessarily so, a considerable element of estimate and speculation. In fact, definite conclusions are conceded to be impossible and the computations made assume to cover the issues only in part. The result arrived at is therefore hardly so impressive as it otherwise would be.

The figures shown at p. 23 of the Transcript, Vol. I, indicate the conjectural nature of the findings of cost. Assumed factors are the basis of calculation.

An analysis of the statement that there was a loss of from $9,000.00 to $12,000.00 during the test year indicates that it can scarcely be counted a loss at all. It is derived from a comparison of what the road earned with what, under certain conditions, it might have earned. (Transcript, Vol. I, pp. 25, 26 and 27). Such a comparison obviously should be made between what was received and what the service cost or what it was worth. Any rate, however high, could be condemned on this reasoning. If the statutory rates were trebled the amount this carrier, as the initial carrier, would lose under the conditions existing in these cases by this standard would be increased in the same proportion. Such a test obviously cannot measure the loss to the carrier resulting from the rates. It rather shows the effect of pro-rating. According to this reasoning the carrier, on the basis of a 40 cent rate

for 28 miles, the distance the commodity is carried on the Soo road from Wilton to Bismarck, and 62 cents for 100 miles, would lose, on 100 tons carried 100 miles, over connecting carriers, $22.64. It may be assumed for the purposes of demonstration that 40 cents per ton represents the cost, or the value of the service, of carrying a ton of coal 28 miles, so that the loss of $22.64 mentioned would represent the loss incident to what is termed by the court, "compulsory pro-rating." Now, if the rates were trebled, the amount received for hauling a ton 28 miles would be $1.20, while for hauling it 100 miles it would be $1.86. For carrying 100 tons 100 miles there would be received then $186.00. Pro-rating this charge, the initial carrier would receive $52.08, that is 52 cents per ton for a distance of 28 miles or 12 cents more than the service cost. Following the court's process of deduction, the initial carrier, for this service, would lose the difference between the amount received, $52.08, and the amount which it would have received had the coal been delivered 28 miles distant from the initial point, $120.00, or $67.92. That is to say though in fact the carrier makes a profit of 12 cents per ton upon its haul of 28 miles under the trebled rates it would still, according to the basis upon which it has been assumed the court has made its finding, lose 67.9 cents per ton, or 15 cents per ton more than it would lose under the lower rate.

Plainly the court did not mean to announce a finding so patently erroneous. It might, consistently with the figures produced, demonstrate the ill effect of com-

pulsory pro-rating, either from the viewpoint of mathematics or of logic. This must have been the mind of the court. Such a view of its purpose is sustained by repeated reference in the opinion to the pro-rating feature of the statute. (Transcript, Vol. I, pp. 24, 25, 27, 34 and 35). It does not attribute the so-called loss in dollars and cents so much to the insufficiency of the statutory rates but to the final paragraph of the statute. The provision referred to is as follows:

> "In case any shipment of coal under the provisions of this section must pass over two or more lines of railroad to reach its destination, then an additional charge of two dollars and fifty cents per car for each transfer may be allowed and collected to cover cost of switching, and the total amount of freight and switching charges shall be divided among the several railroads concerned upon such basis as to them may seem just; provided, that if such railroads cannot agree among themselves upon an equitable division thereof, then the board of railroad dcommissioners shall decide the matter, subject to appeal to the courts."

This section has been somewhat condemned by the court below apparently because it has erroneously assumed that it compels the division of freight receipts between connecting carriers in proportion to mileage. There seems to be no language making such a division obligatory. The apportionment is left to the carriers themselves. In case they fail to agree it may be left to the board of railroad commissioners. No order

has ever been made compelling division upon any particular basis in the state of North Daktoa. Hence, if the freight receipts have been so divided it has been done voluntarily, and in case of voluntary submission to such an apportionment the Soo Railroad Company cannot now complain that it is unequitable and unjust.

Louisville & Nashville Ry. Co. v. Comm. 208, Fed. 41, 47.

However, discususion of this section is perhaps needless. Whatever may be the correct interpretation of its language, it remains that the emphasis of the court below is placed by frequent repetition and express statement upon the effect of the division of freight charges between connecting carriers rather than upon the insufficiency of the revenues received under the coal rates here involved. It is this phase of the statute which is considered particularly in connection with the finding of loss in dollars and cents, and the cost phase of the traffic is touched especially in the finding that out-of-pocket costs are returned with a fair contribution to other expenses.

9. *It is a Single Commodity Rate Only which is Involved.*

Were an entire schedule of rates in question the proof of the value of the property employed for the public convenience and of the cost of the service ordinarily would furnish the essential factors from which to pass upon the reasonableness of the rates. However, where the rate upon a single commodity is involved the cost of service is not readily ascertained. The principal witness for the Soo road admitted the

impossibility of arriving at the cost of carrying the commodity. (Transcript, Vol. I, p. 19). And in *Central Yellow Pine Association v. Ill. C. R. Co.*, 10 I. C. R. 537, the question is said to be one of almost insuperable difficulty. There is such a diversity of elements entering into the problem that an exact computation is well nigh impossible. The subject was discussed by the Interstate Commerce Commission in the case just cited. Its conclusion there is that the reasonableness of a commodity rate depends upon the value, volume and other characteristics affecting the transportation of the commodity. The following shows the reasoning of that body:

> "But it is further contended on behalf of the defendants that lumber, considering its character and all the conditions incident to the services rendered in its transportation, was not, at the 14-cent rate in force at the date of the advance, yielding its property proportion of the revenue reqquired by the defendants to meet their expenses—in other words, that the rate as applied to lumber was not a reasonable rate, viewed from the carrier's standpoint, in that it was not adequately remunerative. The question of the reasonableness in this sense of a rate on a single article of traffic is one of almost insuperable difficulty.
>
> "In *Smyth v. Ames,* (Nebraska Freight Rate Case, 169 U. S. 466; 42 L. ed. 819, 18 Sup. Ct. Rep. 418), there was involved an entire system of rates applicable to all traffic on the roads in

the state of Nebraska and not the rate on a single commodity or article of traffic. In that case the Supreme Court held that the carrier is entitled to earn 'a fair return upon the value of that which it employs for the public convenience.'

"The value of the entire property of a road employed for the public convenience can shed but little if any light upon the question whether the rate on a single among thousands of articles of traffic yields its proper proportion of a fair return on that value. The rate on one article of traffic may be reasonably high and the carrier fail to earn a fair return on the value of the entire property employed for the public convenience because of unreasonably low rates on other traffic, and vice versa, the rate on one article of traffic may be unremunerative or unreasonably low and the return to the carrier from its entire business may be fair or reasonably high, the deficiency under the rate on the one article of traffic being made up by the rates on the balance of the traffic * * * It has not named any as shedding light upon the reasonableness of a rate on a single commodity like lumber. It is evident that such elements are widely variant in the two cases. Where an entire system of rates is involved, the principal, if not the only question, is, whether the revenue yielded by the rates on all traffic is a fair return on the value of that which is 'employed for the public convenience'—a question, the determination of which, as we have shown, can

have only a very remote, if any practical bearing on the reasonableness of a rate on a single article is in issue, the question (which could not arise in the former case) whether the rate is unjustly discriminatory or unduly preferential, may be presented, and the reasonableness of the rate depends upon the value, volume and other characteristics affecting the transportation of the particular commodity to which it is applied."

In an earlier case, *Thurber vs. N. Y. Co.*, 3 I. C. C. Reports 473, the same tribunal said:

"The cost of service, while recognized as an important element in classification and rates, is not alone controlling. On that basis some articles on account of relation of commercial value to cost of service, though furnishing a large volume of traffic, would not be carried at all, and others of high commercial value would have a very low rate without increasing tonnage.

"Another element of the highest importance, and that cannot be disregarded, is the value of the service to the article carried. This is a factor that largely determines the classification and rates the article will bear in the transactions of commerce, and necessarily qualifies the influence of other factors in the distribution of charges with the view to average reasonable revenue."

The very difficulty encountered in ascertaining accurately the cost to the carrier of the service rendered makes it desirable and necessary, in judging of the reasonableness of a rate, to take into con-

sideration all of the elements and factors which can possibly throw light upon the problem. To these we have already called attention. Many of them are discussed in *Interstate Commerce Commission v. Chicago Great W. Ry. Co.*, 141 Fed. 1003, 1015. If the value of the service cannot be mathematically ascertained so that the line of demarcation between profit and loss is located with relative precision, the presumption in favor of the reasonableness of the rate must prevail. This should be emphatically so where the entire business is profitable, and where other elements favorable to the rate exist.

Summary: *In View of all Proper Considerations Confiscation has not been Established.*

Upon a railroad objecting to the prescribed rates falls the burden of proving that the constitutional guaranty of protection to its property is infringed thereby.

M. & St. P. Railway Company v. Tompkins, 176 U. S. 173; 44 L. ed. 420.

Arkansas Rate Cases, 187 Fed. 290.

Louisville & Nashville Railway Companies v. Commission, 208 Fed. 35.

The rule as to the finality with which confiscation must be established is clearly stated in *San Diego Land & Town Co. v. National City*, 174 U. S. 754; 43 L. ed. 1160 as follows:

> "But it should also be remembered that the judiciary ought not to interfere with the collection of rates established under legislative sanction unless they are so plainly and palpably un-

reasonable as to make their enforcement equivalent to the taking of property for public use without such compensation as under all the circumstances is just both to the owners and to the public; that is, judicial interference should never occur unless the case presents, *clearly and beyond all doubt*, such a flagrant attack upon the rights of property under the guise of regulations as to compel the court to say that the rates prescribed will necessarily have the effect to deny just compensation for private property taken for the public use.

Under all of the conditions prevailing and upon all considerations applicable, confiscation has not been established by the carriers. In each of these cases there is an adequate return from the intrastate business as a whole.

Upon the Northern Pacific Railroad there was, according to the basis used, a profit upon the lignite business of nearly $900.00. This was over and above *all* expenses assignable to the traffic, including fixed charges of all classes. To this extent the coal traffic compensated the carrier. So much was contributed by it to dividends. Whether it yielded the same percentage of return that was yielded by the business as a whole does not appear. There are no data from which the value of the property used in that business may be ascertained. This amount of profit was found without giving the coal business the benefit of the principle of classification in assigning cost. Had this been done as in justice should have been done it can-

not here be said how much would have been added to the carrier's profit.

In the case of the Soo Railroad 60 per cent of the revenue received from the coal business paid the actual expenses incurred by the traffic. The remainder contributed toward expenses which would have existed had there been no such business and which in the absence of such a business would have been borne by other freight. This conclusion was reached without giving the traffic the benefit of freight classification and after charging to it extra expense for branch line service and burdening it with the unfavorable conditions under which it was handled. Had average conditions been applied the result would undoubtedly have been as favorable as in the case of the Northern Pacific Company. In fact if the cost of service assigned had been proportioned to the low grade of freight constituting the traffic there would unquestionably have been shown a considerable percentage of profit.

It should be remembered also that the adverse result in this case was attributed to the pro-rating feature of the statute rather than to the insufficiency of the rates. Furthermore in weighing the reasonableness of these rates it must not be overlooked that the state through its legislature by enacting this statute declared a public policy favoring a local industry and intended to promote the general welfare of its people. That the rate affected only a negligible quantity of freight upon either of the carriers and that of the lowest grade.

Upon these considerations it is contended that con-

fiscation has not been established. In view of the adequacy of the returns from the intrastate business as a whole the rates have visited no positive loss upon the carriers. On the contrary in one case they have contributed to dividends. In the other they have, without considering any of the elements which would favor the traffic, lightened the burden which otherwise would have been laid upon other freight. It is these special facts and these considerations upon which the decision must be based.

Respectfully submitted,

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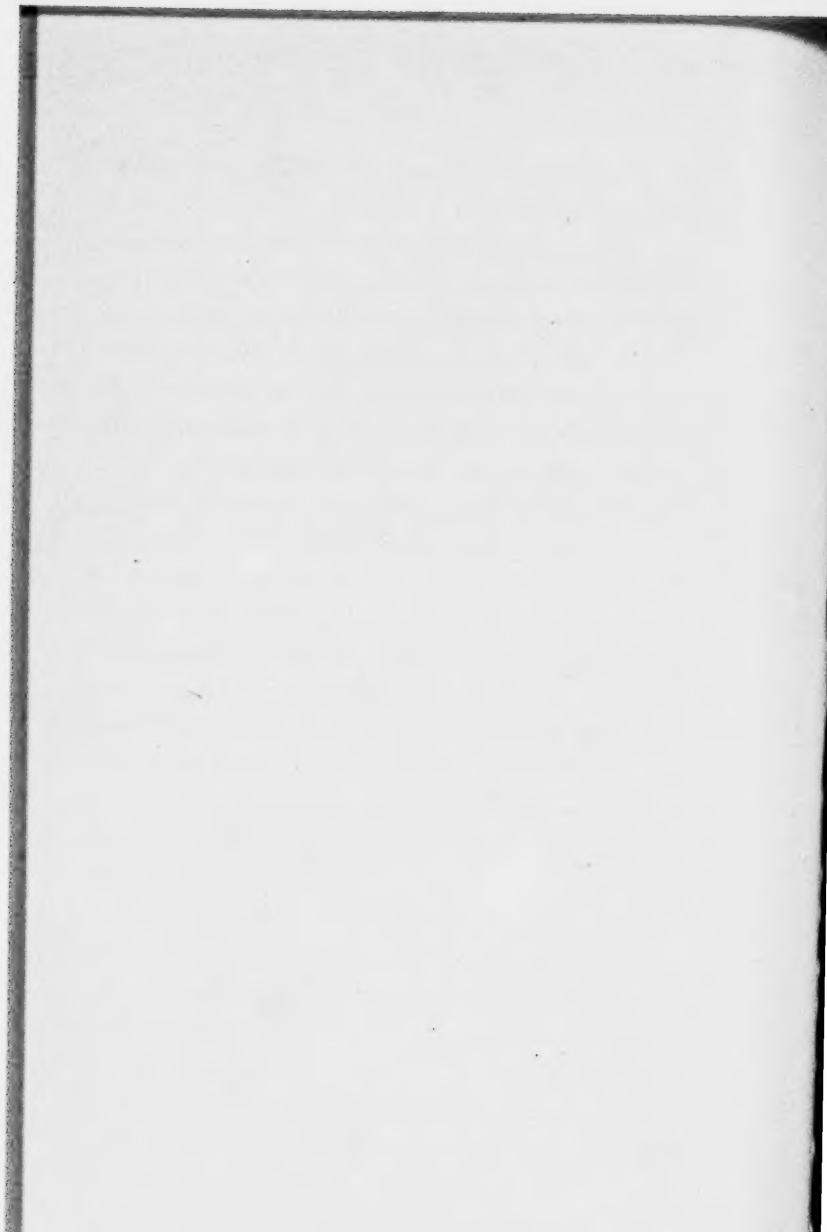
Attorney-General.
C. L. YOUNG,
JOHN CARMODY,
ALFRED ZUGER,
Attorneys for the State of North Dakota.



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Supreme Court, U.
FILED
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JAMES D. MAHER
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IN THE

Supreme Court of the United States

OCTOBER TERM, 1913.

NORTHERN PACIFIC RAILWAY COMPANY,
Plaintiff in Error,

vs.

No. 42

STATE OF NORTH DAKOTA EX REL T. F. McCUE, Attorney General,
Defendant in Error.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE RAILWAY COMPANY,
Plaintiff in Error,

vs.

No. 42

STATE OF NORTH DAKOTA EX REL T. F. McCUE, Attorney General,
Defendant in Error.

WRITS OF ERROR TO THE SUPREME COURT OF THE STATE OF NORTH DAKOTA.

MOTION TO ADVANCE.

ANDREW MILLER,
Attorney General, for State of North Dakota.

CHARLES W. BUNN and
CHARLES DONNELLY,
for Northern Pacific Railway Company and Minneapolis, St. Paul & Sault Ste. Marie Railway Company.

IN THE

Supreme Court of the United States

OCTOBER TERM, 1913.

NORTHERN PACIFIC RAILWAY COMPANY,
Plaintiff in Error,

vs. No. 980.

STATE OF NORTH DAKOTA EX REL T. F. McCUE, Attorney General,
Defendant in Error.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE RAILWAY COMPANY,
Plaintiff in Error,

vs. No. 981.

STATE OF NORTH DAKOTA EX REL T. F. McCUE, Attorney General,
Defendant in Error.

WRITS OF ERROR TO THE SUPREME COURT OF THE STATE OF NORTH DAKOTA.

MOTION TO ADVANCE.

Come now the plaintiffs in error and the defendant in error in the two causes entitled as above and jointly move to advance and set the causes for hearing at a convenient early day. For grounds of the motion they state:

These are writs of error to the Supreme Court of North Dakota. They were before this court on a previous occasion and were decided March 14, 1910. 216 U. S. 579, 581. They involve the question whether

Chapter 51 of the Laws of North Dakota for 1907 prescribing rates for the carriage of coal in that state is constitutional. Plaintiffs in error contend that it is unconstitutional on the ground that the rates therein prescribed are so low as to be confiscatory. In rendering its decision on the writs heretofore sued out this court said:

> "The carriage of coal is a very small part of the railroad's business. The estimate of the cost is admitted to be uncertain, and to depend in part upon arbitrary postulates. It has to be increased considerably above the average cost for freight in order to make out the plaintiff in error's point. We are far from saying that the argument for doing so does not seem to us to have considerable probability on its side. We do not say that experiment may not establish a case in the future that would require a decision upon the question of constitutional law. But we can express no opinion upon it now. The great difficulty in the attempt to measure the reasonableness of charges by reference to the cost of transporting the particular class of freight concerned is well known and often has been remarked. It seems to us that the nearest approach to justice that can be made at this time is to follow the precedent of *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, as nearly as may be, and affirm the decree, but without prejudice to the right of the railroad company to reopen the case by appropriate proceedings if, after adequate trial, it thinks it can prove more clearly than at present the confiscatory character of the rates for coal. *Decree affirmed without prejudice.*" (216 U. S. 580.)

After this decision the rates in question were made effective and they are now in effect. Careful records were kept of the results of the movement of traffic under them, and after they had been in effect for about fifteen months, the railway companies moved the Su-

preme Court of North Dakota to reopen the cases, and to hear further evidence tending to show that the rates were confiscatory. This motion the court granted, and further testimony was taken. The cases were argued before the Supreme Court of North Dakota in September, 1913, and were decided January 2, 1914. The court has made exhaustive findings in each case holding that the rates are so low as to be non-compensatory, but that the law prescribing them is nevertheless valid because neither of the plaintiffs in error has shown that upon its entire business in North Dakota the returns are inadequate.

The constitutional question reserved by the court in its former opinion is fairly presented upon the present record. If the decision of the court shall be in favor of the plaintiffs in error upon this question, they are being subjected to a loss of revenue which it will be impossible for them to recover. In the regulation of railway rates the constitutional question here presented is of great and increasing urgency and importance.

The parties make this motion under paragraph 4 of the 26th rule of this court, reading:

> "Cases once adjudicated by this court upon the merits, and again brought up by writ of error or appeal, may be advanced by leave of the court on motion of either party."

ANDREW MILLER,
Attorney General, for State of North Dakota.

CHARLES W. BUNN and
CHARLES DONNELLY,
for Northern Pacific Railway Company and Minneapolis, St. Paul & Sault Ste. Marie Railway Company.

4

Supreme Court of the United States

Office Supreme Court
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JAMES D. MAHE
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OCTOBER TERM, 1914.

No. 420.

NORTHERN PACIFIC RAILWAY COMPANY,
Plaintiff in Error,

vs.

STATE OF NORTH DAKOTA,

AND

No. 421.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE RAILWAY COMPANY,
Plaintiff in Error,

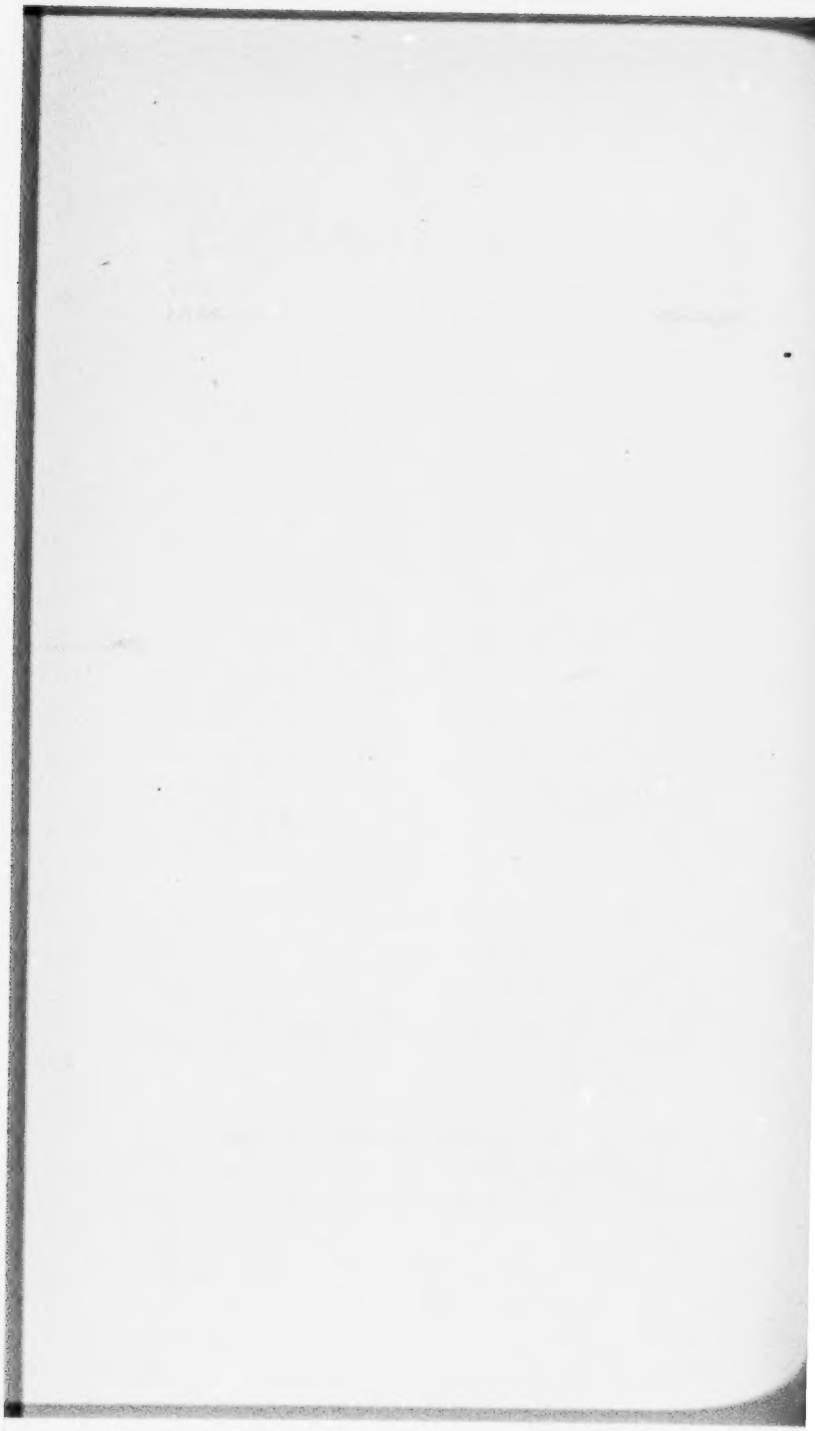
vs.

STATE OF NORTH DAKOTA.

BRIEF FOR PLAINTIFFS IN ERROR.

CHARLES W. BUNN,

CHARLES DONNELLY.



SUBJECT-INDEX.

	Page
Statement	1-8
Assignment of Errors	8-9
Argument	9-27
Appendix	29-34

TABLE OF CASES.

	Page
Atlantic Coast Line Railroad Company v. North Carolina Corporation Commission, 206 U. S. 1	20, 21
Atlantic Coast Line Railroad Company v. Florida, 203 U. S. 256	21
Interstate Commerce Commission v. Stickney, 164 Fed. 638; 215 U. S. 98	24
Interstate Commerce Commission v. Union Pacific R. R. Co., 222 U. S. 541	18
Lake Shore Railway Co. v. Smith, 173 U. S. 684	14
Louisville & Nashville Railroad v. Railroad Commission, 208 Fed. 35	12
Minneapolis & St. Louis Railroad Company v. Minnesota, 186 U. S. 257	19
Minnesota Rate Case, 230 U. S. 352	11, 12
Missouri, K. & T. R. R. Co. v. Interstate Commerce Commission, 164 Fed. 645	24
Missouri Pacific Railway v. Kansas, 216 U. S. 262	22
Monongahela Navigation Co. v. United States, 148 U. S. 312	15
Northern Pacific Ry. v. North Dakota, 216 U. S. 579	1, 3, 9, 18
Pennsylvania Railroad Company v. Philadelphia County, 220 Pa. 100; 68 Atl. 676	25
St. Louis and San Francisco Railway Company v. Gill, 156 U. S. 649	19
Seaboard Air Line Railway v. Florida, 203 U. S. 261	21
Shreveport Case	12
Smyth v. Ames, 169 U. S. 466	16, 19, 20, 21
State v. Northern Pacific Ry. Co., 19 N. D. 45; 120 N. W. 869	2

Supreme Court of the United States

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NORTHERN PACIFIC RAILWAY COMPANY,

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MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE RAILWAY COMPANY,

Plaintiff in Error,

vs.

STATE OF NORTH DAKOTA.

BRIEF FOR PLAINTIFFS IN ERROR.

STATEMENT.

These are writs of error to review judgments of the Supreme Court of North Dakota. Both cases were before this court on a previous occasion. 216 U. S. 579. They present the question of the constitutionality of a state law fixing for the carriage of coal rates so

low as to yield the carrier nothing for use of its property. The State of North Dakota asserts a right, sustained by the judgment below, to compel the railways to furnish the use of their property without any compensation, and to carry coal for less than their actual expenditure properly chargeable to that carriage.

The history of the litigation is as follows:

By Chapter 51 of the laws of 1907 (see Appendix) the Legislature of North Dakota fixed maximum rates for the carriage of coal in carload lots in that state. These rates the carriers refused to put into effect. In August, 1907, the Attorney General of North Dakota filed in the supreme court of that state a petition asking that the Northern Pacific Railway Company be enjoined from disobeying the act. Like proceedings were begun at the same time against the Minneapolis, St. Paul & Sault St. Marie Railway Company and the Great Northern Railway Company. Each company answers that the act was void because the rates it prescribed were unremunerative and confiscatory. Testimony having been taken and the case having been submitted, the court rendered its decision April 16, 1909. 19 N. D. 45; 120 N. W. 869. The holding of the court upon the main question submitted may be gathered from the fifth and sixth head notes to the opinion, reading:

> "Evidence examined, and *held* not sufficient to overcome the prima facie presumption that the rates prescribed by said act are reasonable.
>
> "The proper test as to whether the rates thus fixed are reasonable or unreasonable is not whether the rate fixed on the particular commodity is sufficiently high to enable the carrier to earn a fair compensation after allowing for the legitimate cost to the carrier of transporting the same, but whether, under such rates, it will be enabled from its total freight receipts on all its

> intrastate traffic to earn a sum, above operating expenses reasonably necessary for such traffic, sufficient to yield a fair and reasonable profit upon its investment. It is within the power of the Legislature to reduce the freight on a particular article, provided the carriers are enabled to earn a fair profit upon their entire intrastate business."

Writs of error in the cases were sued out in this court which, on March 14, 1910, affirmed the judgments of the Supreme Court of North Dakota, without prejudice to the right of the defendants to reopen the case. This court said:

> "The carriage of coal is a very small part of the railroad's business. The estimate of the cost is admitted to be uncertain, and to depend in part upon arbitrary postulates. It has to be increased considerably above the average cost for freight in order to make out the plaintiff in error's point. We are far from saying that the argument for doing so does not seem to us to have considerable probability on its side. We do not say that experiment may not establish a case in the future that would require a decision upon the question of constitutional law. But we can express no opinion upon it now. The great difficulty in the attempt to measure the reasonableness of charges by reference to the cost of transporting the particular class of freight concerned is well known and often has been remarked. It seems to us that the nearest approach to justice that can be made at this time is to follow the precedent of *Willcox v. Consolidated Gas Co.*, 212 U. S. 19, as nearly as may be, and affirm the decree, but without prejudice to the right of the railroad company to reopen the case by appropriate proceedings if, after adequate trial, it thinks it can prove more clearly than at present the confiscatory character of the rates for coal."

Thereupon, and on April 11, 1910, the rates in question were made effective. After they had been in

effect for something more than a year, the Northern Pacific Railway Company petitioned the Supreme Court of North Dakota to reopen the case to hear additional evidence in support of its contention that they were confiscatory. The petition was granted, the Clerk of the Court being appointed referee for the purpose of taking and reporting the testimony. Like proceedings were had in the two cases involving respectively the Minneapolis, St. Paul & Sault Ste. Marie Railway Company and the Great Northern Railway Company. Additional testimony was taken in all three cases, the testimony in each, by stipulation of counsel, being made applicable to all. January 2, 1914, the court rendered its decision in the three cases.

As to the Great Northern, it was held that the statutory rate yielded "a reasonably fair compensation over and above all charges and expenses against the lignite traffic, and that as to it the statutory rate is reasonably compensatory." (Transcript, Vol. I., pp. 5, 33.)

As to the Northern Pacific, it was held that "out of total freight receipts for lignite coal amounting to $58,953, the total cost of transportation, or out-of-pocket costs, together with all fixed or overhead expenses apportionable to said lignite traffic, consumed all of said receipts excepting $847, its net profit in the handling of the lignite business for the twelve months in question. That such rate is slightly remunerative but in fact non-compensatory, considering the volume of freight carried and the property of the railroad devoted thereto." (Transcript, Vol. I., pp. 5, 33.)

As to the Soo Company, it was held that "Its total receipts amount to more than its actual out-of-pocket costs, or actual costs of transportation,

but are from $9,000 to $12,000 less than the total costs including fixed and overhead expenses properly chargeable to the carriage of this commodity and against the earnings therefrom. That the carriage of lignite coal by the Soo Line within the state during said fiscal year was not only non-profitable but occasioned a loss to it when its fixed expenses apportionable to all traffic are in proper proportion and amount assigned to and charged against the earnings from this commodity. (Transcript, Vol. I., pp. 5, 34.)

The court held the following propositions of law (Transcript, Vol. I., pp. 5, 6.):

> (1) Proof that a rate is non-compensatory in the sense that while producing more revenue that the direct expenses of transporting a particular commodity it fails to reimburse the carrier for fixed or overhead expense properly apportionable and chargeable to that transportation does not make the rate confiscatory.
>
> (2) To make a freight rate confiscatory it must in addition be shown that the deficit under the rate attacked has the effect to reduce the total intrastate freight earnings on all the carrier's business to a point where that total is an inadequate return upon the value of the carrier's property devoted to the intrastate business.
>
> (3) The railroad attacking a state-made freight rate as unreasonably low must establish the total value of its property in the state, and the proportion of such value apportionable to the domestic freight traffic, in order that it may then be determined whether the rate of return paid by all the domestic freight traffic is a reasonable return on that proportion of the property value so apportionable to domestic business.

> (4) The final step in proving confiscation is to make it appear, either (1) that the total net domestic earnings do not yield a fair return on that proportion of the property value apportionable to the domestic business, and that the commodity in question is carried for less than the out-of-pocket expenses and fixed charges apportionable thereto; or (2) it must be reasonably certain that the loss on the commodity in question reduces the total net domestic freight earnings to a point where they as a whole fail to yield a fair return on the investment.

The court [Transcript, Vol. I., p. 38 (2)] makes plain the sense in which it used the terms "out-of-pocket expenses" and "overhead charges." Out-of-pocket expenses means the direct cost of carrying the coal. The train expenses include substantially the whole expense of this kind. Overhead expenses the court uses as including other items of expense which in large measure are incurred whether the coal moves or not, such as general expense (the cost of administration), traffic expense (the salaries of a traffic department), loss and damage expense, and maintenance and repairs expense (the cost of keeping up the railway property).

The court found as to the Northern Pacific that its gross revenue from domestic coal carried at the statutory rate was substantially equal to out-of-pocket and overhead expense properly chargeable to such coal, thus making no contribution for use of the company's property; and held that the company could be required to furnish the use of its property free.

As to the Soo, the court found the gross revenue from domestic coal insufficient to meet the expenses properly chargeable thereto by from nine

to twelve thousand dollars per year; and held that this company could lawfully be compelled not only to furnish free use of its property but could lawfully be compelled either to lose nine to twelve thousand dollars per year or charge this sum against other traffic.

Judgment was accordingly entered in favor of the state in each of the three cases. In the two cases brought respectively against the Northern Pacific Railway Company and the Soo Company, the defendants have sued out these writs of error.

An extended discussion of the evidence is made unnecessary by these findings. As to each of the plaintiffs in error, the rates in question are found to be non-compensatory. That the court found in the case of the Northern Pacific that the revenue exceeded by a small amount the operating expenses and taxes does not militate against the proposition on which we rely, for the amount is so small that it is treated by the court itself as negligible, and it is obtained only by the disallowance of certain items of expense which, as we think, ought certainly to have been allowed. For instance, the court reduces the amount chargeable for repairs to freight cars from $8,674.04 to $7,121.54 (Transcript, Vol. I., p. 17). Had the haul of the cars used in this traffic been an average haul the latter figure would be correct; but this coal moved an average distance of only 79.13 miles as compared with an average of 227.7 miles for all traffic (Transcript, Vol. III., p. 25) and it is undisputed—the state's own expert witness admitted (Transcript, Vol. II., pp. 536-537)—that a car used in short haul traffic is subjected to more switching than one used in long haul traffic and that increase of switching means increase in the expense for car

repairs. The state's own expert fixes the expense on account of repairs, renewals and depreciation of freight rolling stock at $7,618.80 or about $500 more than the amount allowed by the court (Transcript, Vol. II., p. 459), and on cross examination he admitted that even this amount was too low. (Transcript, Vol. II., pp. 537-538.)

In closing this statement, we invite the attention of the court to the tables appearing at pages 38 to 55 inclusive of Vol. III. of the Transcript, in which the rates in question are compared with coal rates in other parts of the country. This testimony, we are aware, has no direct bearing upon the question in issue here, but it proves in a very striking way that in withstanding the legislation in question the carriers were not moved by any mere litigious spirit. Comparison of the rates named in that law with rates in effect elsewhere showed at once that the State of North Dakota was requiring the carriage of coal in its sparsely settled territory, where the tonnage is very small, at rates much below those established by state commissions or by the Interstate Commerce Commission, in the great coal producing districts of the country where this commodity is carried in train loads.

ASSIGNMENT OF ERRORS.

Errors were properly assigned (Transcript, Vol. I, p. 53), as follows:

I.

The court erred in finding that the rates for the carriage of coal prescribed by Chapter 51 of the laws of North Dakota for the year 1907 yield to the de-

fendant Northern Pacific Railway Company any sum in excess of the operating expenses properly chargeable against such carriage.

II.

The court erred in refusing to hold that such rates are confiscatory and that said Chapter 51 is unconstitutional and void.

ARGUMENT.

Upon the former writ of error we contended that the opinion below stood on the ground stated above in the headnotes of the former opinion of the North Dakota Supreme Court, viz.: that a state-made rate cannot be held inoperative, even though of itself uncompensatory, unless the carrier shows that the rate makes uncompensatory its business within the state treated as an entirety.

This important proposition was fully debated in this court. The court must have thought the doctrine unsound or at least questionable; otherwise the carriers would not have been ordered to make trial of the rates, with leave after such trial to reopen the case for further proofs. This court thought it doubtful (216 U. S. 580) if the carriers had clearly shown in the former record that the coal rates in question were uncompensatory considered by themselves, and sent the case back that further proof of that fact might be supplied.

Before the court now is a finding by the state court, based on over a year's trial of the rates, that they are uncompensatory: that as to the Northern Pacific the rates while compensating for direct out-of-pocket expenses and for a due proportion of overhead expenses are "in fact non-compensatory considering the volume

of freight carried and *the property of the railroad devoted thereto:*" that as to the Soo Company they fall short by $9,000 to $12,000 per year of paying the expenses referred to. In the case of both companies their property is used by coal shippers without any compensation. The state court now has distinctly sustained the rates on the sole ground that no contention or proof is made that those rates have the effect to make the carriers' whole business in North Dakota unprofitable. We stand squarely on the assertion that the state has no right to single out commodities or classes of traffic to be carried by the railroads within its borders at a loss.

The decision below holds that to make a state freight rate confiscatory it must be shown in addition to the uncompensatory character of the rate itself that its ultimate effect is so to reduce the total domestic freight earnings on all the carrier's business as to make such total an inadequate return on the value of the carrier's property devoted to the domestic business. It follows from this and the court holds that the railroad attacking a state-made freight rate as too low must prove the total value of its property in the state and what proportion of such value is apportionable to the domestic freight traffic and finally that the total net domestic freight earnings do not yield a fair return on that proportion of the property value apportionable to the domestic business.

This showing requires in each case a valuation of the carrier's whole property in the state; a separation of that value into value apportionable to passenger business and value apportionable to freight business; and requires a further separation of value apportionable to freight business into value apportionable to domestic freight business and value apportionable to interstate freight business.

The ruling of the court requires in each suit first a valuation of the railway. Without stopping to comment upon the difficulties and perplexities involved in this, which we know puzzled counsel and doubtless puzzled the court in the *Minnesota Rate Case* and other recent similar cases, it is a subject upon which Congress has now legislated, and the Interstate Commerce Commission is engaged—and apparently will be for some years engaged—in making such valuation. But the ruling requires next a separation of such valuation, when obtained, into valuation chargeable to passenger business and valuation chargeable to freight business. This is a refinement upon which neither Congress nor the Interstate Commerce Commission has yet entered. And upon what basis is this division to be made? On the basis of passenger car miles or train miles, as compared with freight car miles or train miles? Or on the basis of earnings for passengers as compared with earnings for freight? It would not be difficult to prove that there is no similarity or relation between passenger car or train miles and freight car or train miles sufficient to stand as the basis of apportionment. And obviously division in proportion to earnings must be on the assumption that all rates, both for passengers and for freights, are equally reasonable and remunerative. See *Minnesota Rate Case*, 230 U. S. 458-461.

But according to the court below a still further step must be taken, that is, the valuation for freight business in North Dakota when ascertained must again be subdivided into valuation for domestic freight and valuation for interstate freight. As domestic and interstate freight commonly differ widely in character and class of commodities carried, differ in length of haul, differ in the character of the equipment used in each, differ in average load of cars and trains, on what basis is this apportionment to be made?

Again it is to be noted that every factor involved in any apportionment varies from year to year and even from day to day. If North Dakota is to value the railroad property in that state, it usurps a function of the Interstate Commerce Commission. If North Dakota is to apportion that value between passenger business and freight business it determines factors which have a direct influence on interstate rates and on the functions of the federal government. If North Dakota is to apportion freight value as between domestic freight and interstate freight it thereby determines factors which have a direct and important bearing on interstate freight rates. No assignment of value to freight business in North Dakota can be made without thereby determining value for interstate commerce and for rates among the states.

Besides impingement upon federal power, the supremacy of which has been affirmed in the *Minnesota Rate Case* and the more recent *Shreveport Case,* the divisions and apportionments of valuation required by the decision below necessitate a showing impossible for any carrier to make—at least until the determining principles shall be settled by federal authority. And, moreover, these divisions and apportionments each state might settle for itself upon principles quite antagonistic to those adopted in every other state.

Again, if the doctrine held below is correct, it follows, as was pointed out in *Louisville & Nashville Railroad v. Railroad Commission,* 208 Fed. 35, 52, that to sustain an attack on a legislative rate affecting one commodity or one class of business a carrier, in addition to showing that its whole business is unprofitable, must prove this want of profit to be caused by the rate attacked. In other words, the carrier must allege and prove by evidence that all its other rates—of which the number is legion—are reasonable and, particularly,

are as high as they ought to be. Had these carriers alleged and proved a deficiency in their total revenue in North Dakota they would have been obliged to go further and bring into the trial the reasonableness of every other rate in North Dakota, in the vain and fruitless effort to prove that the deficiency in revenue was not caused by the uncompensatory character of some other rate or rates.

The practical impossibility of proving under the principles laid down by the state court a case of confiscation, and the consequences of applying those principles which we have briefly suggested raise serious doubt of their soundness. One has a plain constitutional right to his property and the use thereof, and the state cannot take property without compensation. Rules and principles can hardly be sound the practical result of which is to appropriate property without compensation by making defense impossible against such appropriation.

And we submit that the power of a state to fix railway rates is no such unlimited and unbridled power as is conceived by the state court.

We take it the reason and foundation of the power is the right of the public to have reasonable rates and service and to prevent discriminations. No shipper has a right to be served free, but is as much bound to pay a reasonable price as the carrier is bound to render service. If this is true a state's power to fix rates has obvious limitations: it is confined to the abolition of excessive rates and of discriminations; to securing

to the public served by carriers reasonable rates and reasonable service. As was said in the opinion in *Lake Shore Railway Co. v. Smith*, 173 U. S. on p. 698:

> "The authority to legislate in regard to rates comes from the power to prevent extortion or unreasonable charges or exactions by common carriers or others exercising a calling and using their property in a manner in which the public have an interest."

It is a doctrine now too well settled to question that under the guise of regulation a state can no more fix unreasonably low rates than it can physically appropriate a railway.

It is not easy to define what is a reasonable rate, and doubtless each case involving that inquiry must stand on its own facts. Nor is there any absolute measure of what particular rate in any case is reasonable. Indeed, several rates may be reasonable. But we know of no authority or principle settled by authority for saying that a state-made rate can be reasonable and constitutionally valid which allows the owner of property no compensation whatsoever for its use; or which is less than the expense of the carrier in performing the service.

The state's rate-making power rests on protection of the citizens of the state from excessive or discriminatory charges. And it cannot be contended to be necessary or incident to the protection of the public against such overcharges for the legislative authority to impose rates yielding revenue below the cost of furnishing the service. Such a contention seems to us contrary to the fundamental purposes of the police power. While it has been said that the taxing power acknowledges no limitations (and in certain senses this may be true) it has never been laid dow[illegible] the police

power acknowledges no limitations. On the contrary, this power is confessedly subject to the limitation that property by the exercise thereof may not be taken without just compensation. *Monongahela Navigation Co. v. United States,* 148 U. S. 312, 336.

If the carriers in these cases, in order to show the unreasonableness of certain rates on coal, are bound to go further and show unprofitableness of their total freight business within the state there is no logical justification for stopping here. The proposition must be equally sound that the carriers are bound to go further and show that the imposition of these rates on coal renders unprofitable their total business, both passenger and freight, both in North Dakota and in all other states. The doctrine of the court below is that every state may single out commodities or classes of commodities to be carried at a loss, provided the carrier from all its business is earning a sufficient income. And doubtless the federal government has as much power in this direction as any state. The result of the doctrine therefore is that each state and the federal government, because of their own several conceptions of policy, may require certain commodities or classes of freight to be carried at a loss, and that a carrier cannot obtain relief except as to the last imposition which has the effect to turn the scale of its accounts from profit to bankruptcy. The last imposition only could be held illegal under the doctrine announced.

The State of North Dakota conceives that its interest requires transportation of coal at less than cost. Minnesota's interest may require such transportation of grain; Montana's interest of mining products and Washington's interest of fruit and vegetables. The exercise of every such power has the effect to force the carrier to tax unjustly other classes of traffic to make up these losses. If a railway extending through many states may be required in each to carry certain classes of traffic locally at a loss it must obviously charge its losses against other business and particularly against commerce among the states.

We submit that the authorities settle this question against the doctrine held by the lower court. It would seem to have been settled by *Smyth v. Ames,* where the court said, 169 U. S. pp. 540-543:

> "It is further said, in behalf of the appellants, that the reasonableness of the rates established by the Nebraska statute is not to be determined by the inquiry whether such rates would leave a reasonable net profit from the local business affected thereby, but that the court should take into consideration, among other things, the whole business of the company, that is, all its business, passenger and freight, interstate and domestic. If it be found upon investigation that the profits derived by a railroad company from its interstate business alone are sufficient to cover operating expenses on its entire line, and also to meet interest, and justify a liberal dividend upon its stock, may the legislature prescribe rates for domestic business that would bring no reward and be less than the services rendered are reasonably worth? Or, must the rates for such transportation as begins and ends in the State be established with reference solely to the amount

of business done by the carrier wholly within such state, to the cost of doing such local business, and to the fair value of the property used in conducting it, without taking into consideration the amount and cost of its interstate business, and the value of the property employed in it? If we do not misapprehend counsel, their argument leads to the conclusion that the State of Nebraska could legally require local freight business to be conducted even at an actual loss, if the company earned on its interstate business enough to give it just compensation in respect of its entire line and all its business, interstate and domestic. We cannot concur in this view. In our judgment, it must be held that the reasonableness or unreasonableness of rates prescribed by a state for the transportation of persons and property wholly within its limits must be determined without reference to the interstate business done by the carrier, or to the profits derived from it. The state cannot justify unreasonably low rates for domestic transportation, considered alone, upon the ground that the carrier is earning large profits on its interstate business, over which, so far as rates are concerned, the state has no control. Nor can the carrier justify unreasonably high rates on domestic business upon the ground that it will be able only in that way to meet losses on its interstate business. So far as rates of transportation are concerned, domestic business should not be made to bear the losses on interstate business, nor the latter the losses on domestic business. It is only rates for the transportation of persons and property between points within the state that the state can prescribe; and when it undertakes to prescribe rates not to be exceeded by the carrier, it must do so with reference exclusively to what is just and reasonable, as between the carrier and the public, in respect of domestic business.

The former opinion on these writs of error is also authority. Had this court on those writs meant to give countenance to the doctrine of the court below it could not have taken the action it did in disposing of those writs. Had this court subscribed to the doctrine the whole matter would have been ended and these cases would not have been sent back with leave to improve the character of the proof; for obviously there can be no object in requiring better proof of a fact if the fact itself is of no consequence.

In *Interstate Commerce Commission v. Union Pacific R. R. Co.*, 222 U. S. 541, 549, this court made it plain that it does not subscribe to this doctrine. In that case as here the rates in question were rates on a single commodity, namely, lumber. After quoting from the report of the Interstate Commerce Commission a statement that the carriers had conceded the lumber business to yield something more than cost, the court says on page 549:

> "This concession, of course, does not cover the question at issue, but it does fix a starting point. It establishes an important fact in dealing with the difficult question of determining what is a reasonable rate on a particular article. Where the rates as a whole are under consideration, there is a possibility of deciding, with more or less certainty, whether the total earnings afford a reasonable return. But whether the carrier earned dividends or not sheds little light on the question as to whether the rate on a particular article is reasonable. For, if the carrier's total income enables it to declare a dividend, that would not justify an order requiring it to haul one class of goods for nothing, *or for less than a reasonable rate.*"

St. Louis and San Francisco Railway Company v. Gill, 156 U. S. 649, was a case where the legislature of Arkansas fixed three cents per mile as the maximum passenger fare to be charged in that state, and the validity of this act was challenged upon allegations and proof, that upon a certain part only of the San Francisco Company's railway, namely, that extending from the northern boundary of Arkansas to Fayetteville, the three cent rate was uncompensatory. The court held (p. 665) that a railway company cannot claim the right to earn a net profit from every mile, section, or other part of its railroad, nor attack as unjust a regulation which fixes a rate at which some such part would be unremunerative; that it would be practically impossible to ascertain in what proportion the several parts should share with others in the expenses and receipts in which they participate; and that in determining the reasonableness of a legislative passenger rate the whole line within the limits of the state must be considered. Undoubtedly there is a certain necessity that rates should be uniform and the impracticability in fixing different rates, each to apply on a particular section of a railroad, is apparent. Many branches and other parts of railroads are unremunerative, but this constitutes no ground for the carrier's asserting a right to charge such a rate upon each part of its line as will make that part standing by itself profitable. This decision has never been understood to conflict with what was held in *Smyth v. Ames*, and we submit, with deference, that it affords no justification for saying that coal or any other commodity or commodities can be selected and ordered transported generally throughout a state at unremunerative rates.

In *Minneapolis & St. Louis Railroad Company v. Minnesota*, 186 U. S. 257, the rate fixed by the Minnesota Commission was not met by any showing that

at the rates so fixed there would be no profit or an insufficient profit on the coal transported, but was attempted to be met by evidence of a trifling reduction of the revenue for transporting coal, and by a showing that if the coal rate were applied to *all* freight the road would not pay its operating expenses, including interest on its bonded debt and dividends. The court said that this testimony had but slight if any tendency to show the rates fixed by the commission unreasonable (p. 266), and distinguishing the case (p. 267) from *Smyth v. Ames* said, that it followed by no means from that decision that railway companies were entitled to earn the *same percentage of profits* upon all classes of freight carried. Confessedly coal generally carries a lower rate than the average of all traffic (though it is to be observed, as shown in the record in this case, much depends on the length of the haul). And what the court held was, that the rate on coal could not be said to be confiscatory, no evidence having been introduced to show it to be unremunerative for the service rendered, simply because a reduction of the average of all rates to the coal rate might leave the carrier insufficient revenue to pay operating expenses and interest, on its bonded debt and dividends.

In *Atlantic Coast Line Railroad Company v. North Carolina Corporation Commission*, 206 U. S. 1, Mr. Justice White's opinion (pp. 23-25) makes it apparent that the decision rested upon the right to compel the carrier to run a train for the service of the public; and it was held that where a train is required for the reasonable accommodation of the public a carrier cannot avoid such obligation by showing that the particular train would be unprofitable. Undoubtedly the case is authority for saying that a carrier may be compelled to serve the public, though not every one of its acts of service is performed at a profit. But

no such justification exists for the compulsory rate here in question. No complaint is here made that the public is not well served. This case is like *Smyth v. Ames,* and involves the question, whether a state is entitled to compel a carrier to transport some kinds of traffic or all kinds of traffic at a loss, because the carrier on its business as a whole may be making an adequate return.

In *Atlantic Coast Line Railroad Company v. Florida,* 203 U. S. 256, the carrier offered no evidence of the amount of phosphates carried, or whether the rate fixed by the commission was compensatory, how much change the commission's order made in the carrier's rates, or what effect the rates imposed would have on its income. The same is true of *Seaboard Air Line Railway v. Florida,* 203 U. S. 261. No evidence was offered in either case such as this record contains, and there was nothing before the court in either case from which it could be determined whether the rates were compensatory or not. As stated in the opinion in the *Florida Case,* "there is nothing from which we can determine the cost of such transportation."

Mr. Justice White in the opinion in *Atlantic Coast Line Railroad Company v. North Carolina Corporation Commission,* 206 U. S. 1, 25-6, assumed that where a scheme of rates imposed by state authority as a whole is adequately remunerative and yet some of the rates so unequal as to exceed the flexible limit of judgment which belongs to the power to fix rates, that is, transcends the limits of just classification, creating a favored class or classes whom the carrier is compelled to serve at a loss, to the detriment of other class or classes upon whom the burden of such loss must fall, such legislation is invalid; and on the further concession that a like repugnancy to the Constitution of the United States arises from an order under the power

to fix rates, when the result of the enforcement of such order would be to compel a carrier to serve for an inadequate compensation a class or classes selected for legislative favor, even if considering the rates as a whole a reasonable return from the operation of its road may be received.

In *Missouri Pacific Railway v. Kansas*, 216 U. S. 262, pp. 277-279, the court drew sharply the distinction between an unprofitable service required by a state under its general power to fix rates and an unprofitable service which the corporation in its charter had contracted to furnish, saying:

> "We say this because, when the controversy here presented is properly analyzed, the first and pivotal question arising is whether the order complained of did anything more than command the railroad company to perform a service which it was incumbent upon it to perform as the necessary result of the possession and enjoyment of its charter powers, and which it could not refuse to perform as long as the charter powers remained and the obligation which arose from their enjoyment continued to exist. The difference between the exertion of the legislative power to establish rates in such a manner as to confiscate the property of the corporation by fixing them below a proper remunerative standard and an order compelling a corporation to render a service which it was essentially its duty to perform, was pointed out in *Atlantic Coast Line v. N. Car. Corp. Com'n, supra.* In that case the order to operate a train for the purpose of making a local connection necessary for the public convenience was upheld, despite the fact that it was conceded that the return from the operation of such train would not be remunerative. Speaking of the distinction between the two, it was said (p. 26):
>
> "'This is so (the distinction) because as the primal duty of a carrier is to furnish adequate

facilities to the public, that duty may well be compelled, although by doing so as an incident some pecuniary loss from rendering such service may result. It follows, therefore, that the mere incurring of a loss from the performance of such a duty does not in and of itself necessarily give rise to the conclusion of unreasonableness, as would be the case where the whole scheme of rates was unreasonable under the doctrine of *Smyth v. Ames*. . . . . .

* * * * *

" 'Of course, the fact that the furnishing of a necessary facility ordered may occasion an incidental pecuniary loss is an important criteria to be taken into view in determining the reasonableness of the order, but it is not the only one. As the duty to furnish necessary facilities is coterminous with the powers of the corporation, the obligation to discharge that duty must be considered in connection with the nature and productiveness of the corporate business as a whole, the character of the services required, and the public need for its performance.'

"Indeed, the principle which was thus applied in the *Atlantic Coast Line case* had previously, as pointed out in that case, been made the basis of the ruling in *Wisconsin &c. Ry. Co. v. Jacobson*, 179 U. S. 287. The fact that the performance of the duty commanded by the order which is here in question may, as we have conceded for the purpose of the argument, entail a pecuniary loss, is, of course, as declared in the *Atlantic Coast Line case* as a general rule, a circumstance to be considered in determining its reasonableness, as are the other criteria indicated in the opinion in that case. But where a duty which a corporation is obliged to render is a necessary consequence of the acceptance and continued enjoyment of its corporate rights, those rights not having been surrendered by the corporation, other considerations are in the nature of things paramount, since it cannot be said that an order compelling the

> performance of such duty at a pecuniary loss is unreasonable. To conclude to the contrary would be but to declare that a corporate charter was purely unilateral, that is, was binding in favor of the corporation as to all rights conferred upon it and was devoid of obligation as to duties imposed, even although such duties were the absolute correlative of the rights conferred. Was the duty which the order here commanded one which the corporation was under the absolute obligation to perform as the result of the acceptance of the charter to operate the road, is then the question to be considered."

The question would seem to have been involved and decided in *Interstate Commerce Commission v. Stickney,* 215 U. S. 98. Counsel for the Interstate Commerce Commission in that case suggested to the three circuit judges upon the hearing in the Circuit Court, 164 Fed. Rep. 638, 644, that no rates prescribed by the Interstate Commerce Commission for any service could be set aside or suspended, unless the complaining carrier made it appear that the enforcement of the rate would render unprofitable the business of the carrier throughout its whole line. The Circuit Court distinctly overruled that contention, which makes it apparent that this Court when it decided the appeal had the question in mind.

In *Missouri, K. & T. R. Co. v. Interstate Commerce Commission,* 164 Fed. 645, the Circuit Court, consisting of Mr. Justice Van Devanter and Circuit Judges Hook and Adams, said:

> "Neither Congress nor any legislative or administrative board acting by its authorization can competently establish rates for the transportation of property in interstate commerce that will not admit of the carrier earning such compensation for the service rendered as under all the circum-

stances is just and reasonable to it and to the public, for that would be depriving the carrier of its property without due process of law, and would be taking its property for public use without just compensation, in violation of the fifth amendment to the Constitution.

* * * * *

"To be just and reasonable, within the meaning of the constitutional guaranty, the rates must be prescribed with reasonable regard for the cost to the carrier of the service rendered and for the value of the property employed therein."

In *Pennsylvania Railroad Company v. Philadelphia County,* 220 Pa. 100; 68 Atl. 676, the Supreme Court of Pennsylvania, in adjudging void an act of the legislature fixing passenger rates only, said:

"Another objection to the method pursued in the investigation of this subject is that the court confined the inquiry to the passenger traffic, instead of taking into consideration the entire traffic of every kind as appellant claims should be done. This is the most urgently pressed of the appellant's points, but it does not carry conviction. It would be sufficient answer to say that the Legislature itself, in the act of 1907, has treated the passenger traffic as a separate and independent subject of examination and regulation. If the Legislature may do that in ascertaining whether the charter franchise is injurious to the citizens of the commonwealth, why may not the courts do the same in ascertaining whether injustice has been done to the corporators? Both are elements to be considered, and both are powers exercised under the same section of the Constitution. But, independently of this, true business principles require that the passenger and freight traffic not only may, but should, be separately considered. The intelligent business of the world is done in that way. Every merchant and manufacturer

examines and ascertains the unprofitable branches of his business, with a view to reducing or cutting them off entirely; and there is no reason why a railroad or other corporation should not be permitted to do the same thing as long as its substantial corporate duties under its franchise are performed. While the public has certain rights, which in case of conflict must prevail, yet it must not be forgotten that even so-called public service corporations are private property, organized and conducted for private corporate profit; and, unless necessary for the fulfillment of their corporate duties, they should not be required to do any part of their business in an unbusinesslike way with a resulting loss. If part is unprofitable, it is neither good business nor justice to make it more so, because the loss can be offset by profit on the rest. To concede that principle would, as the court below indicated, permit the Legislature to compel the carriage of passengers practically for nothing, though the inexorable result would be that freight must pay inequitable rates that passenger travel may be cheap. The corporation is entitled to make a fair profit on every branch of its business, subject to the limitation that its corporate duties must be performed even though at a loss."

The result of these decisions is that the legislative power to fix rates is a power to fix reasonable rates, that is, rates fairly compensatory to the carrier and fair to the shipper. The power as held by the court below extends to imposing rates uncompensatory to the carrier for the service it renders and for the use of its property and discriminatory in favor of certain shippers as compared with the remainder. The coal rate in question neither compensates the carriers nor imposes a fair charge on the shipper. The decision below rests on the vicious principle that the state may select certain favored classes of shippers and give them reduced or even free rates, imposing on other shippers

the burdens which should rest on the favored class. Were the question new, settled principles would afford a clear answer; but we submit that the answer is already made in the decisions of this court cited.

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